Calendar No. 275

99TH CONGRESS *1st Session*	SENATE	REPORT 99-126

WATER RESOURCES DEVELOPMENT ACT OF 1985

REPORT

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

TO ACCOMPANY

S. 1567

together with

ADDITIONAL VIEWS

AUGUST 1 (legislative day, JULY 16), 1985.—Ordered to be printed

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AUGUST 1, (legislative day, JULY 16), 1985.—Ordered to be printed

Mr. ABDNOR, from the Committee on Environment and Public Works, submitted the following

REPORT

together with

ADDITIONAL VIEWS

[To accompany S. 1567]

The Committee on Environment and Public Works reports an original bill (S. 1567), to authorize the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States, and for other purposes and recommends that the bill do pass.

OUTLINE OF THE BILL

Title 1 sets obligation ceilings on the annual civil works construction program of the Secretary of the Army covering each of the next five years.

Title 2 makes a number of general policy changes in the Federal water resources program.

Title 3 modifies a number of specific water resources projects.

Title 4 provides Federal assistance to the States in developing dam safety programs.

Title 5 authorizes construction of 6 new inland waterway lock projects, at a cost of $977,000,000, to be funded in part from the Inland Waterways Trust Fund.

Title 6 authorizes a national harbor improvement program, as well as 32 projects to be constructed, on a cost-sharing basis, by the Corps of Engineers, at a total cost of $2.7 billion.

Title 7 establishes new cost-sharing procedures covering non-commercial navigation water resources development work, and authorizes construction by the Corps of Engineers of 129 projects, at a total cost of $7.4 billion.

Title 8 authorizes two user taxes on navigation projects: an increase in the existing inland waterway fuel tax, plus a new tax to cover a portion of Federal spending on harbor maintenance.

GENERAL STATEMENT AND DISCUSSION OF MAJOR PROVISIONS

The Federal water resources development program has been in serious decline in recent years:

—Construction spending by the primary Federal water resources agency, the U.S. Army Corps of Engineers, has dropped 78 percent in the past 20 years.

—It takes an average of 26 years to move a typical water development project into construction, once the project study is authorized.

—And no major water resources development bill, authorizing new, up-to-date projects and programs, has become law since 1976.

On several occasions during the past four Congresses, the Committee on Environment and Public Works has sought to enact omnibus water development legislation. Dozens of hearings have been conducted. Several bills were reported to, and in some cases passed by, the Senate.

Yet, in past nine years, only one item has become law, Public Law 95-502, dealing with Locks and Dam 26 on the Mississippi River and imposing an inland waterways fuel tax.

But if the water development program has slowed, with an increase in the backlog of work to do, why is any bill needed now? The answer is three-fold:

1. Reforms in the way projects are to be analyzed and financed are essential if the program is to obtain support from the Executive Branch and the Congress in the future. This bill contains those reforms.

2. Much of the work that is now authorized will never—and should never—be built. The Corps has a large backlog of authorized but unconstructed projects. At current spending rates, the agency could theoretically continue to build these projects for more than thirty years. This bill contains a new deauthorization process to weed out old, unnecessary projects.

3. There is a need for earlier implementation of newly designed projects, ones that meet today's needs. This bill authorizes 167 projects developed within the Corps, as well as other important initiatives.

For these reasons, this bill is necessarily comprehensive and controversial. It bridges a long period of inaction, and molds the existing Corps water resources program into one that is more responsive to public needs.

The Committee recommends to the Senate a bill containing eight titles. These titles contain new projects, new programs, program reforms, and a series of new approaches on the way costs are allocated. This bill contains new procedures for sharing the construction costs of harbor and flood control projects, and imposes new taxes to

defray a portion of the cost of harbor and inland waterway maintenance.

Each of these changes in law will help extend the beneficial impact of limited Federal dollars and will assure that the American taxpayers receive increased value for each dollar invested in the system.

The following section of this report discusses the more significant provisions of this legislation. Cost-sharing requirements are to be applied throughout this Act except where otherwise indicated. Specific projects are discussed in detail in the section-by-section analysis.

Costs

The projects that have been generated within the planning process of the Corps appear in titles 5, 6, and 7 of this bill. The cost of these projects is $11.1 billion, a figure that includes both the Federal and non-Federal shares. Non-Federal cash contributions toward the construction of harbor and flood control projects, as well as the requirement that lands, easements, and rights-of-way be provided by non-Federal sponsors, will reduce that first cost to the Federal taxpayer significantly. Subsequent payback requirements on most other types of projects will reduce Federal costs further.

While it is impossible to calculate the actual "first Federal cost" of this legislation, it is likely to be 70 to 75 percent of the "total" in the bill. Following paybacks over time on some projects, the full non-Federal share of the cost of the projects in this bill is estimated at 47 percent.

Spending Constraints

The civil works program of the Corps of Engineers has evolved quite differently from most Federal public works activities. Once authorized, construction of specific Corps projects may not begin for decades. The traditional authorization process imposes no limits on construction costs, or the price of subsequent operations and maintenance. These levels are established during the appropriations process, when the work to be implemented in any given year is selected, seemingly at random, from a large pool of authorized activities.

The pool of authorized, but unobligated, Corps construction work stands at $36.2 billion. As noted, this bill adds over $11 billion to that list of available work.

Under the traditional system, that entire amount—over $47 billion—is available theoretically to receive appropriations during any fiscal year. This bill places several new constraints on this system.

Title 1 sets an overall limitation on the annual construction program of the Corps. The annual obligation ceiling is set in fiscal year 1986 at $1.3 billion, the level anticipated in Corps planning. This same figure is set for each of the following four fiscal years.

The bill also contains provisions restricting the ability of the Corps to alter projects without further review by Congress. Each project in this bill is authorized at a specific dollar amount, based on the Corps' latest assessment. Under Section 213, the Corps may increase spending on particular projects above the authorized level

only in line with construction and land inflation. Under section 218, the design of any of several key components of a project can not be increased by more than 25 percent, unless later congressional approval is received.

In a variety of ways, the bill will restrain spending. Section 222, for example, requires that the Corps review the cost-effectiveness of all projects that cost more than $10,000,000, if they are not yet under construction. Section 226 seeks to reduce costs by requiring the Secretary to divide contracts into pieces sufficiently small to allow broad competition among engineering and contracting firms.

In another provision designed to assure conformity, throughout the bill, Section 237 requires that every provision in the bill, unless otherwise specifically noted, be subject to the appropriate cost sharing requirements of titles 5, 6, or 7.

Another constraint is a review required by the Chief of Engineers. While each provision in titles 2 and 3 carries great merit, many have never been examined by the Corps. Section 212 requires that the Chief of Engineers study each project in the bill and report favorably before it can go forward. This, of course, includes the appropriate environmental reviews.

As noted earlier, section 203 creates an automatic process to deauthorize projects on which no money has been spent for 10 years or more. This will focus attention on newer, more needed work.

Cost Sharing

The issue of cost-sharing is key to this legislation. The reason is imbedded in the failure of Congress to write a new water law for nearly a decade. That failure stems from an impasse over how costs are to be shared between the Federal taxpayer and the benefitting non-Federal sponsor.

Current cost-sharing policy is inconsistent. It reflects a one-sided partnership in the development of water resource projects, one governed by financial practices that can reasonably be considered out-of-date.

Every major review of Federal water policy in the past 30 years has recommended changes in the cost-sharing policy for water projects. For example, the National Water Commission's 1973 final report stated:

> There is a critical and long recognized need for the reform of cost-sharing policies . . . (which) will not be forthcoming until cost-sharing policies receive attention and review in Congress.

The cost-sharing provisions of this Act are set forth in section 223 and in titles 5, 6, 7, and 8. They cover all types of projects the Corps builds. They cover project development from its inception as an idea for study to its long-term repayment a generation after completion.

Cost-sharing must begin with the inception of a water resource plan of improvement. The General Accounting Office found that 73 percent of Corps studies found no economically justified project. This extremely high rate of failure will be lowered if local interests play a greater role in plan formulation. Helping to pay the study

costs will give them a greater say in determining the project scope and construction alternatives.

Section 223 establishes a new two-step planning process, with the non-Federal sponsors contributing half the cost of the second stage. This will assure that the Corps takes local concerns into account in the planning stages, and likely will produce plans with more widespread support.

The bill also establishes standard cost-sharing rates and payback provisions on many types of benefits. The bill also imposes new cost-sharing requirements for flood control projects. The operative number is the 5 percent cash contribution required from non-Federal sponsors during construction on all flood control projects.

It is difficult to imagine any community where a cash contribution of 5 percent toward the cost of a flood control project will prove onerous, assuming the project provides anything close to the benefits projected in protecting flood-prone lands and saving lives.

Such a cash requirement may encourage mayors and governors to seek construction of more efficient, smaller projects: a $10 million Federal project, rather than a larger $20 million facility. With the number of Federal dollars available always limited, such decisions will help the Corps broaden this program to benefit more communities.

Thus, cash cost sharing is, in reality, a process that transfers to beneficiaries a greater say in the ultimate decision on the design and scope of the Federal project, and should help to assure more cost-effective development everywhere.

The provisions of title 7 are extremely flexible. They take into account the potential difficulty this requirement may pose for poorer communities. Under an ability-to-pay provision, cost-sharing requirements can be modified on a case-by-case basis. The Secretary should include among the criteria to determine ability to pay such factors as income in relation to need, unemployment, and the sponsor's ability to borrow funds.

The Corps is also expected to investigate innovative financing methods for projects. Section 215 authorizes the Secretary to enter into cost-sharing agreements with special project repayment districts organized under State law for the purpose of repaying the non-Federal project cost-share.

Navigation

The gridlock in water resources policy has proved particularly debilitating to the Federal navigation program. Historically, the Federal Government has financed the full cost of designing, constructing, rehabilitating, maintaining, and operating the commercial inland waterways, as well as the coastal harbors of the United States.

To meet growing navigation needs, while imposing a reasonable market test on what is clearly commercial development, the bill contains three titles that set new policies for the development of inland waterways and coastal harbors. Each is discussed below.

Title 5 authorizes six new inland navigation projects, and requires that half their cost be financed from funds collected from the tax on the fuel used by commercial barge operators.

Title 6 authorizes important new harbor projects, and permits non-Federal public interests to collect user fees to reimburse themselves for a newly required non-Federal share of the cost.

Title 8 raises the existing fuel tax on commercial barges using the major inland waterways, and imposes a new tax to cover a portion of future harbor maintenance costs.

The taxes and fees in this legislation are not for the purpose of raising revenue. Rather, they are to repay costs related directly to the servicing of commerce. These fees and taxes offset services rendered to vessels. The provision of a new, deeper channel is as much a service rendered to the shipper as pilotage, dockage, or wharfage.

Inland Navigation

The Nation's inland waterway system consists of 25,600 miles of waterways, connected by 160 dams and 240 locks. By the end of this century, 97 of those locks will be at least 50 years old. According to the draft National Waterways Study made by the Corps, a total capital investment of between $5.2 billion and $12 billion may be needed by 2003 to rehabilitate and improve the existing system.

The existing inland waterways fuel tax was enacted in 1978. It will reach 10 cents a gallon October 1 of this year, producing revenues of about $50,000,000 annually. Federal spending on the construction, operation, maintenance, and rehabilitation of the commercial components of the inland system is approximately $650,000,000 annually.

The need to perform new work on the inland waterways, while at the same time completing old work and continuing ongoing operation and maintenance, comes at a time when Federal budget constraints are severe. Since new infusions of large sums of general revenues appear unlikely, two options exist: increase the level of non-Federal funds available to the system, or continue to fall behind in meeting the needs of commercial inland navigation.

The first alternative is preferable. Title 8, part A, moves in this direction by increasing gradully the existing barge fuel tax to 20 cents a gallon over a period of 10 years, beginning in 1988. Half the cost of building each of the six new inland projects authorized in title 5 will be financed from the Inland Waterways Trust Fund, into which the barge fuel tax is deposited.

In this way, needed work can go forward with less impact on the Government's general revenues. Funds raised from the fuel tax are not to be used for operating or maintaining the inland system. Under this bill those expenditures must come entirely from general revenues.

Harbor Construction

Title 6 and part B of title 8 affect commerical harbor development and form what is the single most significant feature of this bill: a modern harbor development policy.

Throughout the history of this Nation, port and harbor development has been essential to maritime commerce. In a natural state, very few bays and estuaries have depths greater than 20 feet.

While some early harbor improvements were undertaken by private initiative, harbor development became the responsibility of

the Army Corps of Engineers because of the high costs and the engineering expertise these projects required.

Over the past 150 years, nearly 300 harbors have been improved by the Federal Government. In addition to work at large commercial ports, this program included development of fishing harbors and harbors of refuge for small commercial and recreational craft.

Changes in marine transport technology have increased the size of vessels, producing a need for deeper and deeper harbors. At the turn of the 20th century, 30-foot-deep channels accommodated virtually all ships. In subsequent decades, standard harbor depths increased to 35, 40, then 45 feet. This latter depth is now inadequate for many fully loaded tankers.

The constraints of relatively shallow harbors add to the costs of importing crude oil and petroleum products. Deeper draft harbors would facilitate the export of U.S. coal and, eventually, other bulk commodities, such as grain and ores.

This legislation continues the Federal commitment to our harbors, establishing a clear Federal policy for the construction, operation, and maintenance of such facilities.

Title 6 maintains the current Federal process for authorizing harbors, with Federal appropriations for construction and work to be undertaken by the Corps of Engineers. But the title establishes the requirement of cash cost sharing for the construction of new harbors. This is essential to set priorities, to enable the marketplace to help determine the best investment.

Title 6 establishes three categories of harbors, and sets cost sharing requirements for cash during construction on each:

—Projects shallower than 20 feet, 10 percent non-Federal;

—Harbors between 20 and 45 feet in depth, 25 percent non-Federal; and

—The "superports" harbors deeper than 45 feet, 50 percent non-Federal.

In addition, every new harbor construction project, no matter what its depth, must pay 10 percent of the project cost over time, once the project is completed.

The policy of title 6 will encourage the marketplace to determine which harbors should be expanded and deepened. It allows those harbors that can obtain financing to be constructed expeditiously, while retaining a substantial Federal role in both the construction and maintenance of all harbors.

Federal studies have shown that as many as 34 harbors could be depended to superport dimensions for efficient coal exporting. Under current law, there is no way to identify the two or three priority projects for construction in the short term, the number of projects which most studies indicated are needed now. The continuance of traditional harbor development policy will not meet national needs because it does not provide a market test for project selection. In the absence of such a test it is unlikely that the Federal Government will finance the construction of such port improvements when the cost of these superports approaches a half billion dollars apiece.

In a recent report, the Congressional Budget Office said:

> To the extent that users of services are willing to repay the government for investments made in their behalf, revenues become available to support those projects. But to the extent that higher fees prompt users to reduce demand, investment needs decline. When high fees cause reductions in demand, investments can be tailored accordingly.

Under present law the evaluation of navigation benefits centers on the reduction in the cost of transporting goods. Transportation savings should result from the use of larger vessels, reduction in transit time, lower cargo handling and tug assistance costs, and reduced storage costs. If the Federal Government uses that evaluation to justify to the Congress a $10,000,000 project or one costing a half billion dollars, a similar analysis should be as compelling to non-Federal financing bodies. To argue otherwise is to question the very basis of the Corps' evaluation procedures.

As proposed by the Corps of Engineers, three "superport" proposals—Norfolk, New Orleans, and Mobile—are approved in this bill. Since the discussion of cost-sharing arose, non-Federal interests at each of these ports have begun to discuss less costly options, ones that would achieve superport depths in a more cost-efficient manner than the Corps plan.

This would never have occurred using the traditional approach. This search for cost-effectiveness comes only as it becomes clear that the beneficiaries will need to finance a portion of the cost.

As with items covered by title 7, there is no distinction between projects newly authorized, and those already on the books. All projects, unless they are now under construction, must contribute the same percentage of non-Federal cash during or after construction. For a program with a backlog that could last well into the 21st century, such a clarification is essential.

Harbor Maintenance

In recent years, the Committee considered a variety of proposals involving harbor maintenance. These ranged from diverting a portion of customs revenues for harbor work to port-by-port maintenance fees to more studies. The debate in some cases is between high maintenance harbors and low maintenance harbors; in others it is between large ports and small ports; or between bulk cargo and containerized cargo ports.

Part B of title 8 imposes a harbor maintenance tax, one that will be uniform across the nation. This tax is set at 4 cents per $100 value of the cargo passing through harbors. This will raise an estimated $140,000,000 yearly. The fees will be collected on all cargos loaded and unloaded at America's commercial harbors, including those in the Great Lakes.

Part B places the revenues into a Harbor Maintenance Trust Fund, which will be used to finance up to 40 percent of the costs of future harbor maintenance dredging.

The bill sets this cargo tax on the value of the commercial cargo loaded or unloaded. The tax in title 8 is not on the harbor, nor is it on the vessel's operator or owner. The tax is set on the value of the cargo, and is to be paid by the owner of the cargo, or his agent.

To help to defray the costs of maintaining new harbors deeper than 45 feet, local sponsors will also be required to pay half of the cost of maintenance below 45 feet, a requirement totally separate from the the requirement of part B.

The method of tax collection under part B is left to the discretion of the Secretary of the Treasury. The use of the U.S. Customs Service appears to be logical and suitable, but this is not mandated.

All cargoes are subject to this ad valorem tax, except unprocessed fish and aquatic animals fresh caught during the course of the voyage.

Title 8, which includes the inland waterway fuel tax as well as the harbor taxes, will be considered by the Finance Committee. That committee may well alter title 8 insofar as the structure of the actual tax and fees. But the use of the money collected pursuant to this section will remain as described by the Committee on Environment and Public Works elsewhere in this bill.

Other Provisions

Section 224 establishes an important new program that will assure adequate mitigation of fish and wildlife losses at all Corps of Engineers projects. This section initiates two new approaches: It creates a new on-going mitigation authority that will be used at older Corps projects, and it requires that the Corps, in all future work, assure that mitigation is considered, and moves forward in advance of, or in concert with, actual project construction.

There are presently over 67,000 dams in the United States. Large numbers of these exist in States that have little or no capability to review and inspect them for safety. In addition, approximately 1,600 new dams are built yearly, often with little or no State review.

Testimony before the Committee indicated the need to augment the Federal role in dam safety. While the safety of non-Federal dams is primarily a non-Federal responsibility, inadequacies exist in many State dam safety programs.

Title 4 contains provisions that will help the States establish more effective programs to monitor the safety of non-Federal dams. It finances a program of research into innovative dam safety inspection techniques, authorizes funds to update the National Inventory of Dams and establishes a National Dam Safety Review Board to advise the Secretary in implementing this program.

Title 4 only provides support for State dam safety programs. In no way is it intended to assist the States in the actual construction, repair, or reconstruction of any non-Federal dam.

SECTION-BY-SECTION ANALYSIS

TITLE I

The Corps of Engineers operates two basic civil works construction accounts: "Construction, General" and "Flood Control, Mississippi River and Tributaries."

This title limits the amount of money the Secretary of the Army can obligate for those two accounts. The limitation is set at $1.3 billion for each of the fiscal years 1986, 1987, 1988, 1989, and 1990. These obligation ceilings have been set to reflect the Congressional Budget Office estimates of spending in Corps of Engineers construction work and the Mississippi River and Tributaries project.

This ceiling is not a spending authority. It is a ceiling to limit expenditures.

This title covers new construction, as well as ongoing construction work, for harbors, inland waterways, flood control projects, hydroelectric power facilities, as well as the other types of projects within the Corps' responsibility.

The Corps contracts, and is reimbursed for, work it undertakes for other Federal agencies. The Corps also receives payments during construction from local project sponsors. This title exempts from the ceiling any amounts obligated by the Corps against payments by other Federal agencies and local project sponsors.

The title also defines the Secretary of the Army as the key person though which the authorities and funds in this bill are directed. This is appropriate. Prior to the creation of the post of Assistant Secretary of the Army (Civil Works), such directives were made to the Secretary of the Army acting through the Chief of Engineers. It now seems appropriate that these responsibilities go through the person nominated by the President and confirmed by the Senate for this role.

TITLE II

This title contains generic provisions that will improve the management and promote efficiency in the programs of the Corps of Engineers. In a few instances, these provisions also apply to the Soil Conservation Service of the Department of Agriculture.

SECTION 201

Occasionally the Corps has constructed flood control projects that produced major windfall benefits to individual landowners. This section seeks to assure that Federal flood control projects are truly "public" in nature, and that any landowner receiving a particularly large share of the benefits of a project pay for a portion of the cost of those benefits.

Under this section, any landowner who will receive more than 10 percent of the flood control benefits of a Corps water project must contribute half of the costs allocated to those benefits. Prior to the construction of any such project, the benefitting landowner must enter into a contract with the Secretary that requires the owner to pay the required share, either prior to project construction or when the benefits are realized by the sale of the land.

In project studies initiated subsequent to this Act, the Corps must include information on the likelihood that any landowner would be subject to this provision. This requirement is separate from the provisions of Title 7. A contribution under this section shall not be considered a contribution under title 7.

SECTION 202

This section affects project reports having recreation benefits, including work by the Corps of Engineers and the Soil Conservation Service (SCS), if the SCS project is submitted for approval to the Congressional committees on public works. Such reports will hereafter contain information on similar recreation facilities in the general area of the project, with an assessment of the impact of the proposed project on the use of those other facilities.

In the past, recreation benefits for some Corps and SCS projects appear to have been calculated without reflecting existing recreational developments in the vicinity. This section is intended to assure that this will not occur in the future.

It should be noted that this section, as well as sections 205, 206, and 207, involve SCS work. These sections affect only those projects under the jurisdiction of the Senate Committee on Environment and Public Works and the House Committee on Public Works and Transportation. Projects submitted to the agriculture committees of the Congress are not affected by these sections.

SECTION 203

The Corps of Engineers estimates that the backlog of authorized Corps projects that are incomplete or remain to be initiated totals $18.9 billion for an estimated 371 "active" projects and $17.3 billion for an estimated 540 "inactive" or "deferred" projects. Active projects are either funded or are ready to be initated. Inactive and deferred projects require restudy or lack the support of local interests.

The theoretical pool of authorized Corps construction work thus totals $36.2 billion.

The General Accountig Office has reviewed unfavorably the existing Corps project deauthorization procedure authorized in Public Law 93-251. Under this procedure the Chief of Engineers must submit to the Congress an annual list of authorized projects that should not be undertaken.

The Corps has developed elaborate procedures to prepare these deauthorization lists. The lists are cleared through the Secretary of the Army, then sent to Congress where projects become deauthorized after 90 days of continuous congressional session, unless either public works committee adopts a resolution continuing project au-

thorization. Projects removed from the list may not be reconsidered for deauthorization. Very few projects have been so deauthorized.

GAO has calculated that between 1977 and November 1981, 453 Corps projects were deauthorized. Of this total, 275 (61 percent) were deauthorized in the first deauthorization report in 1977.

The backlog of Corps projects remains a high potential cost to the taxpayer. The existence of the backlog adds to the difficulty of authorizing modern, environmentally sound projects.

Under this section, any Corps of Engineers project on which construction has not begun within 10 years of its authorization is deauthorized automatically, unless the Secretary, after consultation with the appropriate State or States, notifies both public works committees that the project remains justified. This procedure would become effective one year after enactment.

There are 675 projects 540 inactive or deferred and 135 active with Federal cost of $26.4 billion that have received no funds over the past 10 years, and thus would be eligible for deauthorization a year after this bill becomes law. Project deauthorization would in no way prejudice subsequent approval of a more modern, effective project.

In this section, as well as throughout the bill, the term "project, or separable element thereof," is used often. A separable element of a project is that portion that can be developed separately and can produce benefits, no matter whether it was authorized individually or collectively.

SECTION 204

This section is a companion to section 203. It rescinds authority for the Secretary to conduct project studies authorized by law, or by resolution of either congressional committee on public works, if no funds have been spent on that study within five years.

It is estimated that there are 309 Corps studies costing a total of $366,500,000 that have received no funds since fiscal year 1980 and would be affected by this section. Of this number, 206 studies are described as inactive.

The need to perform individual studies has been shown to change with time in many cases. To protect the Federal Government from performing unneeded water resources project studies, it is prudent to require a new congressional action, either by Committee resolution or law, for study authorities unfunded for more than five years.

SECTION 205

This section affects all SCS small watershed projects submitted to the public works committees after January 1, 1986. This section requires that each of these projects with a Federal cost greater than $10,000,000 be authorized by an Act of Congress.

Presently, these projects, regardless of cost, are authorized by resolutions of the public works committees. Projects with a Federal cost exceeding $10,000,000 are too large to be authorized solely by committee resolution; they deserve the consideration of the full Congress. Further, requiring such an Act of Congress will help to focus congressional attention on this important program.

SECTION 206

This section requires that any SCS small watershed project submitted to the public works committees must have benefits directly related to agriculture that account for at least 20 percent of the project's benefits.

A major intent of Public Law 83-566 was to provide benefits to agriculture and agriculture-related purposes. In a significant number of projects reviewed by the Committee, agriculture benefits have been low. At the same time, the SCS has become involved in a few predominantly urban projects that would seem more appropriately to fall within the province of the Corps of Engineers, rather than a primarily agricultural/rural program such as the Public Law 566 program.

In view of the importance of agriculture to the vitality of the Nation and its citizens, and in view of the vast unmet needs of this sector of our society, the Public Law 566 small watershed program should retain its primary purpose.

The intent of this section is therefore twofold: (1) to insure that agriculture remains an important element of those Public Law 566 projects reviewed by the public works committees, and (2) to discourage the use of this program for primarily urban projects.

SECTION 207

This section requires the SCS to study the desirability, feasibility, and policy implications of requiring that public access be provided to any or all water impoundments that have recreation potential and were constructed under the small watershed program, Public Law 83-566.

Since the beginning of the program in 1956, almost 8,000 impoundments of various types have been built pursuant to Public Law 566. The vast majority of these were built on private land and are unusable by the general public. Yet in some cases, these impoundments represent a Federal investment for construction of what amounts to a private recreational lake.

While many of these should not be developed for recreation for any number of reasons, such as poor water quality or lack of significant year-round water levels, it is clear that many of these lakes or ponds could become valuable as public recreational resources.

Conversely, many of these projects might not have been built if public use had been required on private land.

Consequently, it is appropriate to review the fundamental concepts of these projects. The SCS is required to report to Congress by April 1987 on the results of this study.

SECTION 208

This section authorizes the Secretary to certify that locally constructed improvements for flood control would be compatible with a Federal project under study, enabling local interests to proceed with such work on the understanding that the local improvements will be considered a part of the Federal project for the purposes of benefit-to-cost analysis and subsequent cost sharing.

This authority was granted originally by the Water Resources Development Act of 1976. It worked as follows: If the local sponsor of a potential Corps flood control project involving, for example, channel and levee work, wished to go ahead and build the levees at its own expense, it may do so. Under this provision, the local interest requests that the Corps' district engineer certify that the levee would be a part of a potential project and compatible with it.

Once certification is received, local sponsors are guaranteed that their expenses in building the levee will be counted towards their required share of the whole project's expenses (subject to title 7 of this Act), and will remain part of the project for the purpose of the calculation of the benefit-to-cost ratio.

This section is meant to apply only at locations where a study authorized by Congress is underway or where the study report has been forwarded for Executive Branch review or for consideration by Congress. This section would not apply to projects that are authorized prior to the local request. Moreover, it would not alter previously authorized local actions involving projects authorized in this bill, such as the project for Lake Wichita, Holliday Creek, Texas.

Except for local engineering work, only local work begun after certification is eligible to be counted for purposes of local cost sharing credit and benefit-cost analysis. Federal credit for the local work may not exceed the Corps of Engineers estimate of the reduction in Federal expenditures resulting from that local work.

This authority will provide local sponsors more flexibility in meeting their flood control needs, while not increasing Federal responsibilities.

SECTION 209

This section establishes a five-year program of research and assistance to local communities for the control of river ice. A total of $5,000,000 for each of five years is authorized.

In the northern regions of the country, many communities suffer from flooding as a result of the buildup of ice dams during the winter and early spring. Ice piles up to impede streamflow, causing flooding, and, in many cases, serious bank erosion. Many communities are unable to prevent or remove these ice dams, and consequently, incur expensive damages. By expending a relatively small sum on river ice control research, the loaning of equipment, operator assistance, and other technical aid, the Corps can prevent many millions of dollars in flood damages annually.

An example of a project that should be considered under this section involves the Heart River, which flows into the Upper Missouri below the cities of Bismarck-Mandan in North Dakota. The buildup of ice dams there contributes to spring flooding.

This section also authorizes $900,000 for a small demonstration project for innovative techniques of river ice control at Hardwick, Vermont. The Corps is expected to work with the Town of Hardwick to develop the most effective ice control plan. As part of this authority the Corps should undertake research and monitoring, as well as the development of ice retention devices and the clearing and grading of lands to reduce the ice flooding danger.

The Secretary is required to report to the Congress by March 1, 1988, on activities taken as a result of this section.

SECTION 210

This section authorizes the Secretary to provide engineering and technical assistance to local communities for rebuilding or improving former small scale hydroelectric facilities and other industrial sites that have hydroelectric potential. A total of $5,000,000 for each of five years is authorized.

On request of a local government or an electric cooperative, the Secretary is directed to provide technical assistance on the design and construction of a project to utilize an existing site for power generation. Project construction would be carried out at non-Federal expense.

The Corps estimates that there are between 30,000 and 40,000 sites throughout the United States that, by virtue of their design and location, offer viable opportunties to generate hydroelectric power. Local communities and the nation would profit and become more energy independent by utilizing the energy potential of these facilities.

SECTION 211

Section 221(b) of the Flood Control Act of 1970 (Public Law 91-611) prohibits the Secretary from initiating construction on any water resources development project until the project's non-Federal sponsor agrees to a legally-enforceable written agreement to provide its share of the funding of the project. In some cases, State constitutions prevent such agreements.

In the future, where the State is the non-Federal sponsor of a Corps project, the State would be able to sign binding contracts with the Corps to pay the non-Federal share of project development without obligating in any way future State legislative appropriations. Public non-Federal sponsors below the State level would also be able to sign such agreements.

As redrafted by this section, a State, or a body politic of the State that derives its powers from the State's constitution or was created by the State's legislature (such as a city, county, or levee district), is permitted to enter into long-term, legally enforceable, and binding contracts to pay for its share of a Corps water resources projects, without obligating future State legislative appropriations or other funds in a manner that would be inconsistent with the state's constitutional limitations.

This section holds special importance in view of the changes in cost-sharing that will be required by titles 6 and 7 of this Act.

Subsection (b) is particularly important in view of the requirements of titles 6 and 7. Subsection (b) requires the Secretary, in consultation with the Secretary of the Treasury, to promulgate rules governing interest and penalties for delinquent payments required by section 221(b). This subsection is meant to help insure that if the Federal Government obligates funds, begins construction on a water resources project, and lives up to its part of the agreement, then there are sanctions available to insure that the

non-Federal sponsor repays its share of the project's cost in a timely manner.

Subsection (c) authorizes the Secretary to stop funds from being obligated for the operation and maintenance of any water resources project, including the Mississippi River and Tributaries flood control project, if the non-Federal sponsors of that project are more than 24 months overdue in payment of their obligations to the United States under section 221(b). This subsection is permissive, not mandatory. The Secretary can make a judgement as to whether or not stopping operation and maintenance funds to a project would endanger the public health or safety.

The example used to illustrate such a situation is a project where there are several non-Federal sponsors, one of which fails to meet its obligations. Under this situation, the Secretary could conclude that the project should continue to receive funds based on the benefits it provides and the participation of the other sponsors.

SECTION 212

The final planning stage for a Corps of Engineers project study prior to review by the Secretary of the Army is the review by the Chief of Engineers. Before reaching this stage, the project, which has been conceived and approved at the district level, is reviewed by the division engineer and the Board of Engineers for Rivers and Harbors. In the case of projects developed in the lower Mississippi River, projects are first approved by the District Engineer, then reviewed by the Mississippi River Commission before being reviewed by the Chief of Engineers.

A project approved by the Chief of Engineers has been approved at each of the prior stages, and has been found by the Chief to be economically justified and environmentally acceptable. Before being signed by the Chief of Engineers, each project report must have a final environmental impact statement.

A few proposals authorized in this Act, particularly in title III, have not been reviewed by the Chief of Engineers. This section is intended to assure that no construction may begin on any of these until they receive favorable review by the Chief of Engineers, and consequently have been found to be economically and environmentally justified.

SECTION 213

Historically, projects of the Corps of Engineers have been authorized with no specific cost limitations. In many instances, significant project cost increases have occurred by the time of construction.

This section limits the sums which can be appropriated for any project in this bill to the cost listed in the bill, plus any incremental increase justified solely by increases in construction or land costs, requiring the Corps to adhere more closely to the project plan authorized by Congress.

This section, together with section 218 which places limitations on post-authorization changes to physical project features, will assure that the projects actually built coincide more closely with the proposals examined and authorized by Congress in this Act.

SECTION 214

This section prohibits the Secretary from requiring that non-Federal project sponsors assume the operation and maintenance responsibilities of any recreation facility at an existing Corps of Engineers water resources project as a precondition to construction of new recreation facilities at that or another project.

Presently, when non-Federal interests wish to add recreation facilities at an existing Corps project, the Corps requires that those interests agree to pay 50 percent of the construction costs, plus all of the cost of operating and maintaining the new facilities. Recently, the Secretary took the position that, in addition to these requirements, non-Federal interests must agree to assume all cost for operation and maintenance at other Corps-operated recreation facilities. This section overrules this later interpretation.

SECTION 215

This section allows the potential sponsors of a water resource development project to create, pursuant to State law, a Federal Project Repayment District with which the Secretary of the Army is authorized to execute a repayment agreement.

This provision will provide project sponsors with greater flexibility in meeting the cost-sharing requirements in title 7 of this bill.

The Repayment District could recover funds needed to repay the Federal Government, by imposing charges or fees on property sales, leases, or other transactions at the time revenues (and, therefore, economic benefits) are realized by project beneficiaries.

In many cases the construction of a water resource project will cause property values in its vicinity to increase significantly. For example, the value of land that is frequently flooded will often increase greatly once flood frequency and severity is significantly reduced by the construction of a flood control project. It is reasonable to assume that an equitable way for a local sponsor of a water resources project to recover its share of the project costs will be to tax the increases in land and property values associated with the project. This section allows local sponsors, in accordance with state laws, to create such an entity for the purpose of cost recovery.

SECTION 216

This section assures that all Missouri River projects authorized by this Act are subject to the so-called "O'Mahoney-Milliken" provision of the Flood Control Act of 1944, which states that beneficial consumptive uses of Missouri River waters take precedence over navigation uses.

The O'Mahoney-Milliken provision simply guarantees that during times of low water on the Missouri River, consumptive users of the river's water, such as irrigators, certain industries, and municipalities, may continue to use the river's water without fear of legal recourse from navigation interests, even though the river level may be reduced below minimum levels needed for navigation.

SECTION 217

This section amends section 111 of the River and Harbor Act of 1968 to create a new small project authority, allowing the Secretary to implement nonstructural measures to mitigate shore damage attributable to Corps navigation projects.

Section 111 of the 1968 Act authorizes the Secretary to investigate, study, and construct projects for the prevention or mitigation of shore damages attributable to Federal navigation works. Under this discretionary authority, the Federal government now bears the entire cost of installing, operating, and maintaining these small projects.

There are many instances where nonstructural measures could accomplish the stated goals of section 111 at less cost to the Federal government and in a more environmentally sound manner than the construction of shore protection projects.

Under this section, the Secretary would be authorized to acquire shoreline property or an interest in real property associated with a shoreline after the completion of a feasibility study. The study process should be coordinated with Federal agencies, including the Federal Emergency Management Agency, and other interests.

Since the Secretary would be under no legal obligation to acquire the property, and since the property would not be needed to complete Federal navigation projects, it is anticipated that the Secretary would acquire the property by voluntary purchase, rather than through the power of eminent domain.

A non-Federal project sponsor must agree to share the initial cost in the same proportion as cost sharing for the project causing the shore damage, then operate and maintain the real property or interest in real property for a public purpose, on terms and conditions satisfactory to the Secretary.

Normally, the Federal Government would retain all property rights even though the local sponsor is operating and maintaining the property. But where the sponsor is prohibited by law from operating or maintaining real property unless they possess an interest in it, the "terms and conditions" clause would enable the Secretary, at his discretion, to enter into a long-term lease with the sponsor.

SECTION 218

This section should be considered together with section 213, involving cost escalation of Corps projects. This section prohibits the Secretary from constructing any project that has been authorized by Congress on which, subsequent to that authorization, any of the following project elements or parameters is increased by more than 25 percent: (1) acreage of land acquisition, (2) linear miles of stream channel inundated, (3) housing units displaced, (4) width or depth of navigation channel, (5) hydroelectric generating capacity, or (6) linear miles of stream channelization. In any such case, the increase would have to be constrained, or the project would have to be resubmitted to Congress for a new authorization.

The basic parameters of water resource development projects are presented in considerable detail in the Corps of Engineers feasibility reports, which serve as the basis for most construction authori-

zations. The judgment of the Secretary is essential to maintain a degree of flexibility for large and complex construction projects.

Nevertheless, substantial modification of authorized projects, either in scope or in kind, is a judgment more properly reserved to Congress.

It is not the intention of this section to encourage the modification of authorized projects up to the 25 percent threshold. All post-authorization changes must still be supported in the original project authorization and other relevant law.

Nor is it the intention of this section to preclude minor changes in project design resulting from post-authorization studies and more detailed on-site analysis.

The Secretary may establish by rule a standard for determining the minimum changes that should not be subject to a rigid application of the 25 percent rule. For example, a project authorized on the basis of 40 acres of land acquisition and the displacement of three houses should not require reauthorization if modified to acquire 52 acres and seven houses.

Similarly, changes in the displacement of houses that result from increased building activity totally outside the control or expectation of the Corps would be beyond the intended applicability of this section.

When the Secretary does propose modifications to a project in excess of the limitations of this section, he is required to report to Congress on the extent of the recommended changes, together with the view of other appropriate Federal agencies.

This section does not apply to projects already under construction by the Corps of Engineers.

SECTION 219

This section amends the Water Resources Research Act (Public Law 98-242) to establish a comprehensive research and development program on the depletion of the Ogallala Aquifer. Grants are available to the six States within the High Plains region—the States of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, and Texas—to perform critical research. The sum of $9,500,000 is authorized annually for five years to carry out this program.

The Ogallala Aquifer is the largest aquifer in the United States and is an important source of water to the High Plains States. The six Ogallala States produce 15 percent of the nation's wheat, corn, grain, sorghum, and cotton, as well as producing 38 percent of the total value of livestock.

The area is highly dependent upon irrigation to sustain this high level of production. In all, there are 14.3 million acres of irrigated land dependent on the Ogallala Aquifer, with over 170,000 irrigation wells tapped into it. More than 21 million acre-feet of water were pumped from the aquifer in 1980.

Monitoring of the aquifer in past years has revealed that natural recharge is not keeping pace with the rate at which water is being pumped from aquifer. It is estimated that the aquifer is being overdrawn by over 3 million acre-feet annually. Considering the projected growth in the area, action is needed now to reverse this

trend. This section establishes a new title in Public Law 98-242 to authorize several important research and demonstration programs.

Section 301 of the new title establishes a High Plains Council. The Council—composed of the six Governors (or their designees), as well as representatives of the Departments of Agriculture and Interior—shall coordinate the research activities of the State advisory committees.

To operate this new title in each State and to coordinate the Council with the States, the Secretary of the Interior under section 302 shall establish, within each of the six States, a technical advisory committee to:

(1) Review existing State laws and institutions on water management to assure the most efficient use of the waters of each State;

(2) Establish State priorities for research and development;

(3) Provide public information, education, extension, and technical assistance on water conservation and management; and

(4) Review applications submitted by institutions of higher education for grants to conduct critical research on the aquifer.

Each committee shall include a representative of the Department of Agriculture, a representative of the Department of the Interior, and five persons appointed by the Governor. The five representatives shall include individuals from State agencies with jurisdiction over water resources, individuals from the agriculturel community, the Director of the State Water Research Institute, or others with special expertise in water resources. The sum of $500,000, to be divided among the six States, is authorized yearly for the committees' operation.

Grants for research will be available to institutions of higher education, including the State Water Research Institutes, within each State. The sum of $3,000,000, to be divided among the six States, is authorized annually for research into water-use efficiency, cultivation techniques, irrigation technologies, water-efficient crops, and water and soil conservation.

To qualify for these research funds, an institution of higher learning shall submit a proposal to its State Committee describing the cost, methods, and goals of the proposed research. Proposals will be selected on the basis of merit.

Next, the sum of $1,500,000, to be divided among the six States, is authorized annually for research into precipitation management, weather modification, aquifer recharge, saline water uses, desalinization, salt-tolerant crops; and ground water recovery.

Funds will be allocated to the State committee for distribution to institutions of higher learning in the State. As with the previous Section, project applications must describe the costs and goals of the research. Proposals will be chosen on the basis of merit by the State Committee.

Section 305 of the new title establishes a program of grants to farmers to cover up to 85 percent of the costs of demonstrating new technologies. The sum of $4,000,000, to be divided among the six States, is authorized annually for these demonstration projects. Such projects include water-efficient irrigation technologies, soil

and water conservation management, the growing and marketing of more water-efficient crops.

Under this new section, a farmer must submit a proposal to a State Committee, which will evaluate it on the basis of merit. Each of these demonstrations must be monitored, and the results made available to other State Committees.

In order to continue critical monitoring of the aquifer, $500,000 is authorized annually to the United States Geological Survey, which is expected to work in cooperation with the States of the High Plains region.

The section requires the Secretary of the Interior to keep the Congress informed through annual reports on the progress of the program. A new section 308 authorizes the funds noted above, and requires that these funds be distributed equally among the High Plans States.

SECTION 220

This section would authorize the Secretary to continue advanced engineering and design on a water resources development project prior to its authorization for construction, if the Secretary submits a favorable report on the project to Congress.

The planning and design of water resources development projects by the Corps traditionally involves a number of stages prior to actual physical construction of the project. If a Corps study produces a favorable report to Congress, that report usually provides sufficient detail to enable Congress to determine whether to authorize construction. It does not include detailed engineering and design of the plan of improvement. Such advance engineering and design in the past was undertaken only after Congress actually authorized the project for construction.

Since 1981, appropriations acts have allowed funding of detailed studies and plans and specifications without further authorization. This permits the Corps to continue engineering and design on projects where a final report has not yet been submitted to Congress.

This section allows preconstruction advance engineering and design on projects for which the Secretary has also submitted final feasibility reports. If a report recommends implementation of the project, and if the Secretary determines that continuation of project planning is in the public interest, the Corps may initiate advance engineering and design of the project.

SECTION 221

Increasing scientific evidence indicates that within the next 75 years, global temperatures may increase significantly due to rising levels of carbon dioxide in the atmosphere (caused in large part by the combustion of fossil fuels). Among the very serious consequences associated with such a temperature rise would be a partial melting of the polar ice caps and a resultant gradual rise in sea levels.

Such a scenario would have important and, in some cases, devastating consequences for coastal areas. Many of these areas are presently the object of Corps shoreline erosion studies or are now pro-

tected by Corps projects. Since the evidence for a future rise in sea levels seems considerable, and since the Federal government and others spend tens of millions of dollars yearly to protect property from shoreline erosion, this problem should be examined thoroughly to study strategies to cope with any eventual rise in sea level.

This section authorizes the Secretary, in conjunction with other Federal agencies, to undertake a study of shoreline and beach erosion control policy and problems in view of the possible rise in the sea level. The study should assess the extent of potential coastal inundation, various ways coastal communities might cope with a rise in sea level, associated legal and institutional problems, and then recommend changes, if any, in the Federal role in shoreline protection projects.

A total of $3,000,000 is authorized for this study, which is to be completed within three years and transmitted to Congress along with supporting documentation and the recommendations of the Secretary.

SECTION 222

This section requires that larger Corps projects undergo a review to insure that each project and its individual components are designed in the most cost-effective way possible. This applies only to projects that will cost more than $10,000,000 and on which construction has not begun as of the date this bill becomes law. Construction is determined to begin when construction funds are appropriated. The Corps is required to report to the Congress on the results of these reviews.

In the past it has appeared that certain project designs implemented by the Corps of Engineers were not the most cost-effective. General Accounting Office studies show that there is an opportunity for lowering the cost of water resources projects, using engineering reviews as a cost-cutting technique. Typical reductions in construction costs that may be attributed to such reviews have been found to range from 3 to 10 percent. This review is intended to ensure not only the cost savings during construction, but over the life of the project.

While this section requires such reviews be performed on all projects over $10,000,000 in cost, the Secretary should consider extending this review to smaller projects, when it appears likely to produce substantial savings.

SECTION 223

The reform of the Corps of Engineers study process represents one of the more potentially fruitful techniques to improve the efficiency and final product of the Corps' water resources program. The present system requires the Corps, upon approval by resolution of either of the public works committees of the Congress, to undertake, at full Federal cost, a feasibility study of a problem.

Since studies cost local interests nothing, requests for studies of dubious merit have been frequent. Limited Corps resources are expended on such studies, producing numerous recommendations that a project is not feasible.

The magnitude of the problem can be seen in the fact that only 30 percent of all project studies ever produce a positive recommendation from the Chief of Engineers. The remainder, after the expenditure of varying sums, are terminated as unwarranted at some point in the Corps planning process.

This section establishes for the Corps water resources studies a two-step process: an initial reconaissance study, at full Federal expense, and, if warranted, a full feasibility study that would be performed at 50 percent Federal cost and 50 percent will be provided by a non-Federal sponsor.

Each reconaissance must be completed in 18 months, with a 12-month period anticipated to be the standard.

At least one half of this non-Federal share of the feasability study must be contributed in cash during the study period; a part or all of the remaining non-Federal share can be provided by payments-in-kind, including services, materials, or supplies.

The Secretary recently implemented a two-stage planning process quite similar to this section. In addition to screening out unjustified studies, a non-Federal cost-sharing requirement will result in more significant local sponsor participation in the study outcome and project design.

The provisions for study cost sharing do not apply to water resources studies on which Federal funds have been appropriated, obligated, or expended before the date of enactment of this Act.

This section does not apply to inland navigation project studies but would apply to inland harbor development studies. This section is in harmony with Section 601, which requires 50–50 cost sharing on all harbor development studies.

SECTION 224

This section defines policy regarding the mitigation of damages to fish and wildlife and the enhancement of fish and wildlife resources at water projects constructed by the Secretary.

Non-Federal interests often are reluctant to support fish and wildlife mitigation efforts once a project is in place and consequently this work is frequently not performed. To assure balanced development, this section seeks several basic goals:

Subsection (a) requires that mitigation for projects authorized in or subsequent to this Act, or which are not yet under construction, must be undertaken prior to project construction, or concurrent with construction. The Secretary shall determine which alternative is appropriate. For the purposes of this section, projects where at least 50 percent of the project's lands (other than the mitigation lands) have been acquired are considered to be under construction.

Subsection (b) authorizes the Secretary to mitigate damage to fish and wildlife for any project under his jurisdiction (completed, under construction, or to be constructed) at a cost of up to $7,500,000 per project. Under this continuing authority, the Secretary may not acquire mitigation lands by condemnation on completed projects, or where 10 percent or more of the physical construction is completed. Nor may the Secretary acquire any water rights or interests by condemnation under this section.

The Secretary's obligation ceiling annually for mitigation performed pursuant to this section is set at $30,000,000.

If mitigation costs exceed $7,500,000, or if the Secretary finds he must make acquisitions by condemnation for work that costs less than $7,500,000, the Secretary must obtain an Act of Congress to proceed.

When dealing with older, completed projects, this section is permissive; it is not mandatory. In addition, the Secretary is not expected to alter the design features of a completed project under his authority unless he has been ordered to do so by the Courts.

Subsection (c) requires that mitigation costs be allocated among project purposes and subject to the applicable cost sharing and reimbursement for those purposes. For example, if a project has 50 percent flood control benefits and 50 percent water supply benefits, half the mitigation costs would be allocated to flood control and half to water supply.

For those projects where costs are covered by contracts entered into prior to enactment of this Act, costs shall not be recovered without the consent of the non-Federal interests, or until such contracts are complied with or renegotiated. Except to ensure that mitigation is undertaken on a timely basis, this subsection does not affect or alter the calculation of benefits and costs or the repayment requirements associated with any project. The cost of mitigation activities is to be treated as occurring at the time the damage would occur, not when the funds are expended under the provisions of this section.

Subsection (d) requires all future proposals for water resources projects submitted to Congress by the Secretary for authorization to include a recommendation for a specific plan of mitigation, or a determination that the project will have a negligible adverse effect on fish and wildlife. This is to assure that fish and wildlife mitigation work is coordinated fully and integrated with the project design.

This advance planning will include a specific plan that sets out needed mitigation features, land acquisition and preparation, operation and maintenance procedures, and any other actions designed to mitigate fish and wildlife losses expected. In all cases, the Secretary is required to consult with appropriate Federal and non-Federal agencies with jurisdiction over fish, wildlife, natural resources, and environmental matters.

Subsection (e) codifies existing fish and wildlife enhancement policy for those projects that have enhancement benefits. it specifies that the cost of such enhancement will be a Federal cost when the enhancement provides benefits determined to be of a national character. Examples of national benefits are those involving species that are identified by the National Marine Fisheries Services to be of national economic importance, species that are subject to treaties or international convention to which the United States is a party, anadromous fish, or when such enhancement is designed to benefit species that have been listed by the Secretary of the Interior as threatened or endangerd under the terms of the Endangered Species Act.

If the benefits are not determined to be national, cost-sharing by the non-Federal interests is required. If the benefits are limited to

one State, the non-Federal share is 33⅓ percent; otherwise, it is 25 percent.

Finally, subsection (f) states that subsections (a), (b), and (d), of this section merely supplement and do not supplant or relieve the responsibilities and authorities of the Secretary pursuant to the Fish and Wildlife Coordination Act.

SECTION 225

The very nature of rivers and streams produces streambank erosion. The streambank erosion demonstration program authorized by section 32 of the Water Resources Development Act of 1974 proved that cost-effective techniques could control such erosion.

The Corps has several existing continuing authorities to solve small water resource-related problems. This section provides the Secretary with a new small project authority to plan and construct streambank erosion control projects costing less than $2,000,000, if the work is economically justified and environmentally acceptable.

Under this section, non-Federal interests are required to contribute all lands, easements, and rights-of-way necessary for the project. Operation and maintenance of a completed project will be the responsibility of the local interest.

The sum of $15,000,000 is authorized for each of the fiscal years 1986 through 1990.

An example of the type of project that should receive consideration under this section would be erosion at many locations in North and South Dakota along the Upper Missouri River. Riverbanks there have eroded an average of 8-to-10 feet a year, with serious loss of productive farmland.

SECTION 226

This section is designed to cut water project construction costs by requiring more competition. It requires the Secretary, before offering an invitation to bid on a project, to split that project (and hence its separate contracts) into small enough packages so that many engineering and construction firms can compete for the work, not just a few of the largest firms.

The Secretary, under this section, may not require construction contractors on water resources projects to perform any record keeping that is, by law, the Secretary's responsibility.

SECTION 227

This section involves vessels that have sunk or otherwise become wrecks. Under present law, Corps costs for removal can be only offset by the salvage value of the wreck. In the case of abandoned vessels, this is usually far less than the cost of removal.

The section amends the River and Harbor Act of 1899 and provides that any owner or operator of a vessel must reimburse the United States for expenses covering its salvage, if wrecked. Any money received from such reimbursement, or from the sale or disposition of any such wreck, shall be deposited in the general fund of the Treasury.

SECTION 228

Although the Corps presently has the authority to provide a variety of technical, planning, design, and construction services, on a reimbursable basis, to other Federal agencies, it lacks authority to provide anything more than "specialized and technical services" to requesting states or other non-Federal entities. This precludes actual construction assistance to non-Federal entities, even if reimbursed.

This section allows the Corps to provide a wider range of services, including construction services, to non-Federal public agencies on a reimbursible basis.

SECTION 229

This section would amend the 1899 Rivers and Harbors Act to provide authority for the Secretary to approve alteration or use of navigation and flood control improvements where the Secretary determines that such use would be in the public interest and would not impair the usefulness of the work constructed by the United States.

The Secretary has been asked to approve non-Federal construction in a number of instances where the proposed improvement would benefit the local economy without impairing the effectiveness of the structure built by the United States. Section 14 of the 1899 Act declares it unlawful for any person to alter or make use of any improvement built by the United States for navigation or flood control. This new section allows the Secretary to approve use where such use is permanent and does not injure the public interest, and results in permanent improvement to the strucutre built by the United States.

An example of the need for this authority is the situation in Augusta, Georgia. Local officials there have developed plans for the improvement of the city riverfront on the Savannah River. The city plans to construct an aquarium, restaurant, and amphitheater complex, which would make permanent changes to the riverfront levees built by the Corps between 1908 and 1918. Under existing authority, the Secretary is unable to grant approval for these improvements. This section would allow him to do so, providing the change is found to be in the public interest.

SECTION 230

This section augments the ability of the Secretary to utilize the resources of the Corps in the event of war. The civil works resources of the Corps constitute valuable reserve capability that could be used to meet mobilization needs in times of extreme national need. Under this section, the Secretary may draw upon those civil works resources if required during war.

Subsection (a) authorizes the Secretary to free civil works resources, including funds, personnel, and equipment, from projects not essential to the national defense and to apply those resources to authorized civil works, military construction, and civil defense projects critical to the national defense.

This authority would be available only in a very limited situation: in time of war declared by Congress. This section does not provide authority to construct any project not otherwise authorized by law.

Subsection (b) requires the Secretary to notify the appropriate Congressional committees immediately upon exercising the authorities provided by subsection (a). In addition, this subsection specifies that those authorities shall cease not later than 180 days after the termination of the state of war.

SECTION 231

This section amends a 1922 law, increasing to $50,000, from $100, the criminal penalty for failure to provide statements relative to vessels, passengers, freight, and tonnage required by the Secretary. Such information is used to compile statistics on the waterborne commerce of the United States, which are published annually. This section allows the Secretary to assess a civil penalty of up to $25,000 per violation for failure to provide information required by that Act.

SECTION 232

This section abolishes the California Debris Commission, together with its authority to regulate hydraulic mining. The Commission's remaining navigation and flood control responsibilities would be transferred to the Corps, together with the Commission's assets and liabilities.

The Corps would be authorized to retain all real property interests presently under the Commission's jurisdiction and to take such actions as are necessary to consolidate holdings and perfect title. These real property interests are needed for the continued operation of existing Commission projects.

Originally, the Commission's primary role was to control the vast amounts of soil and debris which were then being released into California rivers and streams by miners using the hydraulic method of gold recovery. Between 1853 and 1909, hydraulic mines poured over 1.5 billion cubic yards of debris into California water, interfering with navigation and frequently caused flooding. The Commission was authorized to regulate hydraulic mining, but hydraulic mining has since become uneconomic. The industry no longer exists, making regulation unnecessary.

Should the need for regulation arise once again, these activities would be regulated adequately under the permit requirements of Sections 10 and 13 of the Rivers and Harbors Act of 1899 and Section 402 and 404 of the Federal Water Pollution Control Act Amendments of 1972.

SECTION 233

This section authorizes additional appropriations necessary to complete all construction of comprehensive river basin plans for flood control, navigation, and other purposes in each of 28 river basins now subject to limits on the amount of funds that can be appropriated.

This section eliminates the need for periodic consideration by the President and Congress of river basin monetary authorization legislation. It is not intended to diminish Congressional oversight for the civil works program. It promotes efficiency in the exercise of that oversight function.

Beginning with the Flood Control Acts of 1928 and 1936, Congress authorized certain basin and project plans for construction, subject to dollar limitations that could be appropriated for the plans in each basin. Twenty-eight basins are now subject to these limitations. In past years, Congress has enacted river basin monetary authorization legislation, raising these limits, often on an annual basis. In 1977, the limits were raised twice in one year. In 1978, failure to pass such legislation disrupted schedules on several projects.

The river basin monetary limits no longer serve a useful role of assuring oversight. Since the passage of the Congressional Budget and Impoundment Control Act of 1974, the authorization committees of both Houses of Congress have developed procedures to provide for annual review of the entire civil works budget. These annual reviews of the overall program reduce the need for the periodic reviews involved in the river basin monetary authorization limits.

SECTION 234

This section provides that should any section or subsection of this Act be held invalid in the courts, that determination does not affect the validity or legality of any other provision in this Act.

SECTION 235

This section would authorize the sale of Corps of Engineers hopper dredges, now in storage, as well as the spare parts for those dredges.

The Corps has in floating storage 12 hopper dredges, which were retired in accordance with Public Law 95–269. These dredges are obsolete, and, since little attempt was made to preserve them when they were laid up, they have deteriorated badly. Rehabilitation costs may exceed their present value.

Legislation that established the program to retire the older Corps dredges failed to provide for the eventual disposal of surplus dredges. No provision was made for costs associated with preserving the older dredges or for their storage.

This section authorizes the Corps to dispose of obsolete hopper dredges using existing Federal surplus property procedures. The dredges may be disposed of by sale or lease to foreign governments, to a Federal or State maritime academy for training purposes, to a non-Federal public agency for scientific, educational, or cultural purposes, or by sale for scrap, or by sale or lease to non-Federal public bodies in the United States. No disposal can be made in the United States if the vessel will be used in any way for commercial dredging. Funds shall go to a revolving fund for Corps vessel maintenance.

A number of public bodies, including one in Texas, have stated an interest in obtaining one of these dredges for use as a maritime

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museum or restaurant. Such a use for vessels, with a current storage cost to the Federal Government of over $100,000 annually, would prove wise.

SECTION 236

The Secretary indicated recently that he intended to charge local interests for water withdrawn from mainstem Missouri River reservoirs for municipal water supplies.

This section provides that, whatever power over the waters of the Missouri River the United States may or may not have exercised through the construction of the mainstem Missouri River dams under the Pick-Sloan Missouri River Basin Program or through the enactment of other legislation, the United States cannot require contracts or charges for certain uses of base flows of the Missouri River. These base flows would be present in the river on a dependable basis without the dams, and, without current federal interference, would be allocated by each state under its own laws subject to the rights of other states under traditional rules of water law.

SECTION 237

This section assures that the cost of every project, project increment, and program authorized in this Act will, unless specified otherwise, be subject to the appropriate cost-sharing and financing provisions of Titles 5, 6, and 7 of this Act.

The primary intent of this section is to insure that projects and programs in titles 2 and 3 pay a share of project or program costs consistent with the new cost-sharing policies set forth in the Act. However, this section is also meant to assure that increments of projects, and work providing benefits for a multiple purpose project, shall be cost-shared in an appropriate manner.

TITLE III

This title authorizes specific water resources development work, together with changes in existing projects that are under the direction of the Secretary.

SECTION 301

A new small project authority for streambank erosion is authorized under section 225 of this bill. Section 301 augments that section, authorizing bank stabilization efforts at three specific locations of severe erosion: Moundville and Fort Toulouse, Ala., and Tangier Island, Va.

The section requires non-Federal sponsors to provide lands, easements, and right-of-way, and to agree to operate and maintain any work undertaken under this section.

At Moundville, Ala., the Secretary is directed to correct serious sloughing and erosion of the left bank of the Black Warrior River. This erosion endangers the structures and cultural resources of the Mound State Park. Correction involves the construction of a dike, and other activities, at a cost of $4,118,000.

The Fort Toulouse National Historic Landmark is located on the Coosa River at its confluence with the Tallapoosa River in Elmore

County, Ala. The Corps is directed to make a 6,900-foot cutoff in the river, isolating the unstable slope and to stabilize the bank upstream and downstream of the Fort. The cost is $15,400,000.

On Tangier Island in Chesapeake Bay, Va., erosion is so rapid on the western shore that the island's airport, a critical link with the mainland, could become unusable within 10 years. Eventually, the island's 800 residents may have to be evacuated. To correct this, the Corps is directed to build a 8,200-foot-long riprap seawall, at a cost of $5,400,000.

Erosion problems, of course, exist at many locations across the nation. Corrective work at various locations has been authorized prior to this Act, and awaits funding. This section states that erosion control projects authorized prior to this law will receive priority consideration in funding.

SECTION 302

Section 302 is a modification of the existing Delaware coast beach protection project. It does the following:

—Eliminates hurricane protection as a purpose of the already authorized project, reducing its cost; the state no longer supports this portion of the project, and

—Authorizes construction of a permanent sand-bypass facility on the south side of the Indian River Inlet jetties.

The Federal Government spends about $1,000,000 every two or three years for beach replenishment under current authority. Under this section, the State and Federal Governments will share the $383,000 annual cost to operate the new sand-bypass facility, which will pump sand from the south side of the inlet to the north side.

This section also directs the Corps to construct erosion protection facilities at the Inlet to protect a road, a sewage treatment facility, and other public facilities.

SECTION 303

This section authorizes the Corps to install a set of emergency gates in the conduit of Abiquiu Dam, New Mexico, at a cost of $2,500,000. This will increase the safe operation of the facility and will complete the project as originally designed.

This project was designed with two sets of emergency gates, standard practice for the Corps. As a cost-cutting measure, one set of gates was eliminated during construction. As a result, routine maintenance checks and repairs to the conduit must be performed by special divers using equipment to cover the conduit with a bulkhead at its lakeside entrance. This process is expensive and inefficient. The addition of these gates will increase safe operation of the facility and reduce maintenance costs.

SECTION 304

This section places portions of the State of New Mexico, now under the responsibility of the Corps district engineers in Sacramento and Los Angeles, Calif., under the responsibility of the district engineer in Albuquerque, NM.

Residents of two portions of New Mexico along the Arizona border must now look to Corps officials hundreds of miles away for water resource planning and assistance, rather than to the nearby Albuquerque office. Placing responsibility for most of the State with Albuquerque district engineer will encourage a more comprehensive statewide approach to its water resource problems.

SECTION 305

Waterbury Dam in Vermont was constructed by the Federal Government and continues to be owned by the Federal Government, although it is operated by non-Federal interests.

Due to safety concerns, the Corps is carrying out repairs on this earthen structure. These repairs do not include work on the dam's concrete, which has deteriorated. This section clarifies that this concrete repair work is the responsibility of the Corps, and should be undertaken expeditiously.

It is clear that this section in no way alters the conditions of the power license on the dam.

SECTION 306

This section eliminates the navigational servitude over portions of the City Waterway in Tacoma, Wash. This action will allow several small boat marinas in the waterway to continue to lease space without the need for certain bonding requirements. Federal control over those portions of the waterway will be ended, eliminating any cloud over the title.

The marinas are operating under permits and leases from the State of Washington, with the State retaining ownership of the bedlands. The State shoreline plan now allows only marinas to be developed in these areas. Should the plan be changed and the bedlands altered with more intensive development, any land-enhancement benefits would accrue to the State as owner of those bedlands.

SECTION 307

This section authorizes the Secretary of the Army to pay certain drainage districts and landowners for work they have had to perform to correct damage caused by the operation of Libby Dam in Montana, constructed by the Corps. Since power drawdowns began at Libby Dam in the mid-1970's, landowners and drainage districts have sustained significant damages to drains, pumps, levees, and other facilities due to the large fluctuations in water levels on the river. The total amount of payment allowed under this section does not exceed $1,500,000.

SECTION 308

This section amends section 10 of the Flood Control Act of 1946 to permit the use of water from Belton Lake, on the Brazos River in Texas, for water supply, in addition to other project purposes.

Current law requires that 45,000 acre-feet of storage space in the lake be reserved for irrigation purposes in the Leon, Lampasas, and Little River Valleys. The need for irrigation water has not devel-

oped as was anticipated in 1946. But the need for additional water supply in the surrounding area has become crucial. The water currently reserved for irrigation in Belton Lake is needed to meet the water supply requirements of the cities and communities in the area.

This section, therefore, amends existing law to permit the use of unneeded irrigation water in Belton Lake for water supply, with non-Federal sponsors required to pay for the use of the water under appropriate water supply law.

SECTION 309

The Pick-Sloan Missouri Basin Program was authorized by Section 9 of the Flood Control Act of 1944 as a coordinated, comprehensive plan for flood control, hydroelectric power generation, irrigation, and navigation developments.

Individual unconstructed, or partially constructed, units of the Pick-Sloan Plan have, from time to time, been revised with Congressional approval to reflect changing conditions or more complete data. However, Congress has adhered steadfastly to the concept that the unconstructed units of Pick-Sloan remain authorized as elements of the plan.

The flood control and navigation benefits of Pick-Sloan have accrued to the lower Missouri River basin. The six massive mainstream storage reservoirs, which provide those downstream benefits, are located in the upper basin States of Montana, North Dakota, and South Dakota.

To obtain the 75,000,000 acre-feet of storage provided by the six upper basin dams, more than 1,500,000 acres—including over 500,000 acres in each of the States of North Dakota, South Dakota, and Montana—have been permanently inundated. Much of that land was prime agricultural land.

The upper basin reservoirs have been in place and providing flood control and navigation benefits for many years. Development of Pick-Sloan irrigation, with its consequent benefits to the Upper Missouri Basin States, has lagged.

While this section makes no change in law, it underscores and reaffirms the intent of Congress to see that the Pick-Sloan plan is carried out to fulfill the promises made to the upper basin States. A more detailed discussion of this section may be found on pages 30 and 31 of Senate Report 98–340.

SECTION 310

This section modifies the authorization of the Jackson Hole-Snake River project in Wyoming. Since completion in 1964, the project has had much higher maintenance costs than were anticipated. This was due to deficient design of the riprap along the stream. Non-Federal interests have spent $637,000 since 1967 to maintain the project.

This section makes the operation and maintenance of the project the responsibility of the Secretary, provided the non-Federal interests contribute the initial $35,000 of those costs each year. This non-Federal share, which may be in cash or materials, is increased over time at the rate of inflation in construction costs.

SECTION 311

This section modifies the flood control project at Truth or Consequences, New Mexico. Truth or Consequences experienced significant flooding in 1972, and again in 1976. Another flood poses a serious danger of loss of life. The project, as authorized in 1948, consisted of a series of levees along the Rio Grande. Because of urban development in the area since 1948, that project is no longer feasible.

As a result, the Corps has reformulated the project and determined that the best alternative is the construction of a flood control dam on Cuchillo Negro Creek. This section authorizes that change.

SECTION 312

Acequias are community irrigation ditches located in the State of New Mexico. Many date back to the 18th century and have historic, as well as economic, significance. However, many of the diversion structures and associated canals of the acequia systems are greatly in need of repair.

This section authorizes $40,000,000, beginning in fiscal year 1986, to enable the Secretary to restore acequias in New Mexico. The State of New Mexico, or other non-Federal sponsor, must pay 25 percent of the cost of any work undertaken as a result of this section. Because of the historic and unusual nature of these projects, the traditional requirement for a benefit-to-cost analysis is waived.

In order to clarify further the Federal role, subsection (d) declares that acequia systems are political subdivisions of the State, allowing them to serve as local sponsors of water-related projects of the Corps. This subsection overturns a legal opinion of the Corps' General Counsel in 1976 that the Corps' authority, under Section 14 of the 1946 Flood Control Act, failed to apply to the repair or rehabilitation of these community ditches. The Bureau of Reclamation has already provided financial assistance to the acequias, indicating Congress in the past has determined they are public entities.

SECTION 313

The St. John River Basin in Aroostook County, Maine, covers nearly one quarter of that State, and produces 85 percent of the truck crops, principally potatoes, grown in New England. Aroostook County is one of 16 counties across the nation judged to have the most severe erosion problems and most in need of immediate conservation work. Because of shallow soils, the typical erosion losses in this area of three tons or more per acre pose a long-term danger to farming operations.

This section authorizes the Secretary to implement a program of research described in the report issued by the New England Division Engineer in May 1980 for the Saint John River Basin. The project is designed to demonstrate sound farming practices.

An irrigation system would provide a constant source of water to crops, resulting in increased yields and improved quality of produce. Management practices, such as crop rotation, will revital-

ize land and reduce soil erosion. This section authorizes $3,430,000 through fiscal year 1988.

SECTION 314

This section would make Starr County, Texas, eligible for bank protection under the Act of April 25, 1945. In the fall of 1932 severe flooding of the Rio Grande created extensive damage throughout the lower Rio Grande Valley. As a result, Congress designated the United States section of the International Boundary and Water Commission as the agency to reconstruct and maintain flood control works in Cameron and Hidalgo Counties in Texas.

To protect the Federal levees against erosion by the river, Congress authorized the Rio Grande Bank Protection Project in 1945. It was limited to Cameron and Hidalgo Counties. Construction of Falcon and Amistad dams upstream on the Rio Grande has further controlled flooding and erosion.

However, Starr County, which lies to the north of Hidalgo County, and is just south of Falcon Dam, must still contend with bank erosion because the Rio San Juan, which enters the Rio Grande in this county, is not controlled effectively in Mexico. This provision would provide equity among Starr, Hidalgo, and Cameron Counties.

SECTION 315

This section authorizes the Secretary to sell and transfer to the local residents and their communities the ownership, operation, and maintenance of townsites at Riverdale, N.D. and Pickstown, S.D.

These townsites were built by the Corps while it was building the Garrison Dam in North Dakota and the Fort Randall Dam in South Dakota. These served as project headquarters and housing for construction workers. Each of these townsites has been operated and maintained by the Corps since completion of project construction.

Although greatly diminished in size from the time of project construction, these townsites consist of dwellings that are now rented, at fair market value, by Corps employees and their families, concessionaires furnishing services to residents, and employees of other Federal, State, and local agencies involved in project related activities. In addition, the townsites contain schools, churches, stores, theaters, recreation halls, and similar facilities. It presently costs the Federal Government in excess of $1,200,000 a year to operate and maintain these townsites.

Under this section, the Secretary is authorized to sell townsite lands and improvements and to transfer, without cost, municipal facilities to the local government entity.

Under the transfer:

—preferential rights are given to residents and concessionaires to purchase property, as well as to nonresident employees, retirees, and public employees;

—opportunity is provided for financial assistance to the purchaser to obtain loans and other means of facilitating purchase;

—temporary community financial assistance, gradually reduced over a transition period of five years, is provided to enable the town governments to assume gradually full financial responsibility. This will enable the recipients to prepare in an orderly manner for the entire financial burden.

To encourage people to return to these towns, other employees and retirees, not now occupying housing in the townsites, are given a preference to purchase, once current residents have made their decisions.

Finally, residents who choose not to buy, but who wish to lease, have that opportunity under a preferential sale of houses to investors agreeing to lease the houses back to residents.

Once all preferences have been exercised, unsold property would be offered for sale to the general public. Thereafter, the Secretary would be authorized to transfer, without cost, to the town government any property not purchased under the order outlined, plus any other remaining property within the townsite boundaries.

SECTION 316

Under the section 314 Clean Lakes program of the Clean Water Act, the Environmental Protection Agency has provided grants to control sediment flowing into Lake Herman, Lake County, S.D., and for similar work at Gorton's Pond, Warwick, R.I. The Secretary is directed to demonstrate a program of pollution mitigation, including the removal of silt that has accumulated at these two sites. The costs at Lake Herman will be $5,000,000; the cost at Gorton's Pond, $730,000.

This section also authorizes a demonstration project for the removal of silt and aquatic growth in Lake Worth, Tarrant County, Texas. Lake Worth is part of an overall flood control system serving the Ft. Worth area. The lake is the primary water supply for Carswell Air Force Base, the Dallas-Ft. Worth Airport, and Tarrant County.

The flood control capacity of Lake Worth has been lessened by the heavy siltation. The lake's flood control capacity is important, and the lake must also be maintained as a reliable source of water to serve Carswell Air Force Base. This demonstration effort will cost $1,750,000.

SECTION 317

Potential tidal power development in the Bay of Fundy, Canada, could have adverse effects on the New England coast, from the Gulf of Maine to Boston Harbor, and on fisheries along the Atlantic coast. Some studies suggest that the Minas Basin project, which is being actively considered for construction in Nova Scotia, would increase the tidal fluctuation in Boston by nearly a foot. Witnesses testified to the Committee that this could have serious implications for the United States coastal environment, increasing storm damage to coastal roads and buildings, and could alter fisheries and shellfish production.

This section authorizes $10,000,000 to be spent by the Secretary in two phases on studies of the possible impacts on the United

States of constructing tidal power projects in the Bay of Fundy. In phase one, $1,100,000 is authorized through October 1, 1986.

In phase one, the Corps shall determine what changes in tidal ranges in the United States would result from the Canadian project. During phase one, the Corps shall also determine what impacts the projected changes in tidal fluctuations would have on beaches, including beach erosion, and estuarine areas, including salt water intrusion in these areas.

If, based on the results of this phase, the Corps recommends further studies, then $8,900,000 is to be available for additional studies through Oct. 1, 1989. Under this second phase, the Corps shall identify and conduct additional studies necessary to determine other impacts on the United States, including environmental, social, and economic ones, and what measures could be taken to lessen adverse impacts.

While the Corps has considerable expertise in the field of engineering, Corps expertise in oceanography and marine biological sciences is more limited. Thus, the Secretary is directed to conduct studies under this section in consultation with appropriate governmental agencies, as well as the National Academy of Sciences.

It is also important that the Corps work closely with other scientists and researchers that are in the forefront of their disciplines. The Corps should award grants or consulting contracts to obtain the best possible information.

To facilitate consultation, the Secretary should establish an advisory committee composed of representatives from appropriate governmental agencies, academic institutions, and the private sector. This committee should participate in plannning and evaluating studies. The views of the advisory committee, to the extent that they differ from those of the Corps should be transmitted by the Secretary in conjunction with the Secretary's report to the appropriate Committees of the Congress.

SECTION 318

This section authorizes a modification of the project purposes for Summersville Lake on the Gauley River, W. Va. The change in purpose would add whitewater rafting as a project element, allowing the coordination of releases from the reservoir during autumn draw-downs from the Lake.

The Gauley River is an important whitewater rafting river. The Corps is directed to work with local interests to establish a schedule of releases in order to increase whitewater rafting benefits.

This schedule of release is to begin on the first weekend after Labor Day, and continue for the next five weeks on weekends, or at other times when the releases have the least impact on public health, safety, and other project purposes.

The Corps is required to schedule the releases as early as possible, and to provide adequate advance notice of such releases. The Corps is allowed to suspend or modify any releases of water made under this section for public health project purposes.

SECTON 319

This section authorizes construction of the Soil Conservation Service portion of a joint Corps-SCS project in the Nonconnah Creek Basin in the vicinity of Memphis, Tennessee.

The SCS project consists of three single purpose flood control structures on tributaries of Johns Creek, which flows into Nonconnah Creek. In addition, the SCS measures will include soil erosion reduction work over the entire 35,000-acre Nonconnah Creek basin area. The SCS portion carries a cost of $24,065,300. The Corps portion of this project is authorized in title 7 of this Act.

SECTION 320

The channel of the James River in northeastern South Dakota is obstructed by sand bars, debris, and silt. Because of these obstructions, the frequency and severity of flooding has increased significantly. The capacity of the channel needs to be restored through dredging or debris removal.

This section authorizes the Corps to participate with State and local authorities to accomplish necessary corrections at a cost of $20,000,000. In addition the Corps shall consider the feasibility and desirability of other flood control and streamflow improvement features, including small impoundments and off-stream storage, then report to Congress on the need for additional authority to construct such features no later than September 1988.

This project should be undertaken on an expedited basis in order to demonstrate the viability of the new non-Federal cost-sharing policies contained in the bill. No construction can be initiated by the Corps until a favorable report has been issued by the Chief of Engineers, but construction could be expedited by State and local authorities.

Construction funds spent by State and local authorities would be credited against cost-sharing requirements applicable to subsequent construction activities by the Corps, provided such expenditures were made in accord with sections 134 of Public Law 94-587, as amended, and sections 212, 215, and 701(h) of this Act.

SECTION 321

This section authorizes additional work to control salt intrusion on the Red River in Oklahoma and Texas. Under the Red River portion of the project, $51,000,000 worth of work is under contruction (Area VIII).

This section authorizes the remaining Phase I work in the Red River, estimated to cost an additional $126,000,000.

The Red River salt control project has a long history. The entire project was authorized by Public Laws 89-789 and 91-611. At the time of the original authorization, during the mid-1960's, an agreement was reached between the States and the Federal Government. Under that agreement, the States would pay to clean up the man-made salt pollution; the Federal Government would finance the clean-up of the naturally occurring contamination.

In 1976, Congress directed that construction not be initiated, except on Area VIII, until the Secretary approved detailed reports

showing the technical and economic feasibility of the project. Construction on Area VIII was begun, at full Federal expense, consistent with the agreements between the States and the Federal Government. Technical and economic feasibility was subsequently established by the Corps' General Design Memorandum No. 25 later that year.

Another Corps economic reanalysis of the project in 1980 reaffirmed that the project was economically justified, with a benefit-to-cost ratio of 1.7-to-1. The Corps recommended that the Secretary approve initiation of construction at the remaining areas in the Red River Basin. This has not occurred. The Executive Branch has insisted that the States involved should carry a substantial share of the cost.

The States have fulfilled the agreement to bear the costs of elimination of man-made sources of salt pollution in the Red River Basin. This section reaffirms that agreement. As the remaining work addresses naturally occurring chloride, as the Area VIII work does, the remaining work is to be at a Federal share of 100 percent.

This section requires the Chief of Engineers to issue a report no later than December 31, 1985, based on the recommendations in General Memorandum No. 25. This section provides further that if no Report is issued by that date, General Design Memorandum No. 25 shall be considered as the Chief of Engineers Report.

SECTION 322

Prior to the time when the Corps of Engineers completed a flood control project on the Milk River at Havre, Montana, in 1957, the city obtained its water from the river at a diversion weir. The flood control project diverted the river around the original weir. A new weir was constructed, at Federal expense, on the relocated river channel.

Since this new weir has never operated properly, the City of Havre has been forced to repair it many times, most recently in the spring of 1982. A preliminary evaluation of water supply alternatives for the city completed by the Corps' Omaha District indicated construction of a new weir would be the best long-term solution for providing a water supply source for the city. This section authorizes reconstruction or replacement of the weir, whichever is appropriate, at a cost of $1,400,000.

SECTION 323

This section authorizes $3,000,000 for the construction of a paved road to the Pearson-Skubitz Big Hill Reservoir in the State of Kansas. Since water was impounded at the reservoir in March 1981, it has become a popular recreation site. The roads leading to the reservoir, however, are unpaved, and fail to accommodate the traffic demands. This section authorizes the construction of a safe and paved access road to the reservoir to adequately accommodate the heavy recreational use of this reservoir.

SECTION 324

This action removes the Federal navigational servitude over 126 acres of filled land in the Hudson River in Jersey City, N.J. Jersey City wishes to use this land, with surrounding lands, as part of an urban redevelopment plan. A declaration of non-navigability allows title insurance to be made available for the land, currently owned by the City of Jersey City. It is understood that these lands are expected to remain in public ownership, thus any benefits in the increase in land values as a result of this declaration will accure to a public body.

For the purpose of this declaration, the lands in the Hudson River in New York Bay are those lands lying within the long list of survey reference points that appeared in Senate Report 98-340.

SECTION 325

This section deauthorizes the William L. Springer Lake Project, located near Decatur, Ill. This project was authorized in 1962, and has a cost presently estimated at $245,000,000.

Subsection (b) of the section provides the City of Decatur with the first right to buy back the lands that were acquired for the project. Those lands shall be offered to the City at the price at which they were sold to the Federal Government, provided that the land remain in public ownership to be used for public purposes. If the use of ownership changes, the land will be returned to the Federal Government. The City of Decatur expects to construct a sewage treatment facility at the site.

SECTION 326

This section amends the authorization for the Big South Fork National River and Recreation Area in Tennessee and Kentucky. The project's monetary authorization limit is increased from $103,552,000 to $156,122,000.

When the Corps completes work within the money now authorized, this national recreation area will be able to accommodate only an estimated 30 percent of its potential visitors. Hence, this area will fall far short of meeting the objectives for which it was authorized.

This additional $52.6 million in authorization will increase visitor use to half of its original potential. It will provide for the construction of lodges in Kentucky and Tennessee, plus the construction of Bear Creek Road, recreation areas, ranger stations, and the Rugby Recreation Area.

SECTION 327

This section declares the Greens Bayou Bridge in Texas to be a lawful bridge for all purposes of the Truman-Hobbs Act. Such bridges are provided federal funds to be moved or raised if they are hazards to navigation.

The Greens Bayou Bridge was determined to be a hazard to navigation, and subsequently the Port of Houston raised the bridge at a cost of $948,087. This section would reimburse the Port of Houston for a portion of that cost. The reimbursement is limited to $450,000.

SECTION 328

Many residents of the State of Utah were endangered by recent severe flooding. Given the uncertain nature of many flood control improvements in the area, this section authorizes the Secretary to conduct a number of flood control studies to determine specific ways and means that could be developed to lessen the danger of flooding. These studies will concentrate on canyon debris basins, rivers, lake tributaries, and outlets in Utah. The Secretary should accomplish these studies as rapidly as possible, then transmit his recommendations to the Congress. Any work that is to be proposed must be economically and enviromentally justified. A total of $1,600,000 is authorized for these studies.

This section covers studies in the following areas of Utah: The Provo River, from the mouth of Provo Canyon to Utah Lake; Utah Lake levees, from Provo River south along Interstate Highway 15; Interstate Highway 15 adjacent to Utah Lake; the Rock, Little Rock, and Slate Canyons in the City of Provo; the Bear River and its tributaries; the Weber River and its tributaries; and the Sevier River and its tributaries.

SECTION 329

This section would increase by $6,667,000 the amount of Federal funds available for rehibilitation of the Illinois-Mississippi Canal. By a series of agreements between the State of Illinois and the Federal Government, the canal was turned over to the State in 1970, for use as a park.

As part of the transfer, Public Law 85-500 specified rehabilitation work to be completed by the Corps. The work was started in the 1960's, and continued until 1974 when it was suspended due to a law suit. A total of $6,528,000 has been spent on the rehabilitation work.

The Illinois Department of Conservation has recently completed a master plan for the park which includes rehabilitation work consistent with work authorized to be done by the Federal Government. At current price levels it is estimated that a total authorization of $13,195,000 would be required to complete the rehabilitation work by the Corps.

SECTION 330

This section directs the Secretary to construct and operate a facility enabling Atlantic Salmon to bypass two Corps of Engineers dams in Vermont during migrations from and to their spawning grounds.

In recent years, Atlantic Salmon have been returned to the Connecticut River for the first time since the 18th century. The revival of this important fishery has occurred because fish ladders and other bypass systems have been constructed at dams on the river's main stem. These systems permit salmon to move from fresh water to the sea and back.

The reaches of the West River above Ball Mountain and Townshend Dams offer excellent potential spawning grounds for salmon. But the dams bar access. Federal and State fisheries experts have

concluded that the optimum solution involves construction of a fish trap below Townshend Dam. The Salmon would then be placed into tanks, and transported by truck to release points above the dams. Modifications at the dams will also be needed to permit passage of juvenile salmon swimming down to the sea.

This section authorizes both aspects of fish passage facilities, as well as the operation of the system once it is in place. For the purposes of cost-sharing, this section will be controlled by provisions of section 224(e) of this Act involving mitigation costs related to anadromous fish species.

SECTION 331

This section would permit the sale of water from the Washington Aqueduct directly to authorities in the State of Maryland in a manner similar to the presently authorized sale of water to Virginia communities. It would also permit the Washington Aqueduct to purchase water from Maryland authorities when necessary to meet emergency conditions.

These authorities would allow the construction of a major new interconnection between the two largest water utilities in the Washington area, the Washington Aqueduct Division and the Washington Suburban Sanitary Commission (WSSC).

This type of interconnection has been recommended in several studies in order to provide for mutual assistance between Washington area utilities in times of water shortage. The WSSC would finance construction of all pipelines and pumping stations required.

In addition, this section would authorize the Secretary to revoke a water sales agreement at any time. The Secretary could use this authority to protect the Aqueduct's current customers during an emergency.

This section would also permit the Washington Aqueduct to purchase water from Maryland water systems that are interconnected with it. This would help to ensure that sufficient water is available for Aqueduct customers during emergency situations.

SECTION 332

This section amends existing authority to allow the Mountrail County Park Commission in North Dakota more flexibility in the use of Federal lands which were conveyed to it under the Water Resources Development Act of 1974. Under this section, the Park Commission would be allowed to utilize part of these lands for the leasing of cabin sites.

SECTION 333

This section deauthorizes the Lake Brownwood modification project at Pecan Bayou, Texas. This project, which was authorized by the Flood Control Act of 1968, would make safety related modifications to a non-Federal dam. Such projects have traditionally been viewed as a non-Federal responsibility.

SECTION 334

Congress authorized the Burlington Dam Project in 1965 and 1970 to provide flood protection to Minot, N.D. The selected plan was modified to raise the level of Lake Darling, an existing project, and to provide levee improvements at Velva, Sawyer, and six subdivisions between Burlington and Minot.

This revised plan was authorized by the 1982 Energy and Water Development Appropriations Act (Public Law 97-88) and has been under construction since then. Completion is scheduled for 1989. Because the Lake Darling Project is under construction, this section clarifies that this work will come under cost-sharing rules in effect prior to this bill.

SECTION 335

The provisions of this section are meant to resolve longstanding problems with regard to a proposed deauthorization of the uncompleted Cross-Florida Barge Canal.

The Cross-Florida Barge Canal was authorized by Congress in 1942 to promote a safer flow of military goods between the Atlantic Intercoastal Waterway and the Gulf of Mexico.

Construction of the canal was begun in 1964, but was halted by a Presidential directive in 1971 for environmental reasons. A 1977 restudy by the Corps concluded that further investment in the project was not warranted because of projected severe environmental effects.

This section leaves authorized the components of the barge canal project which have already been completed, and it deauthorizes the portion of the canal not constructed. The Corps of Engineers will continue to manage and operate the existing structures of the project.

In addition, this section establishes the Cross-Florida National Conservation Area and calls for the development of a comprehensive management plan for the Conservation Area within one year from the date of enactment of this Act. This plan is to be developed by the Secretary, in consultation with the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the State of Florida.

Subsection (b) deauthorizes that portion of the Barge Canal between Eureka Dam and Inglis dam.

Subsection (c) states that those portions of the Barge Canal between the Atlantic Ocean and the Eureka Dam, and between the Gulf of Mexico and the Inglis Dam, are to be operated by the Secretary for the purpose of navigation, recreation, fish and wildlife enhancement, and the economic benfit of the region.

Subsection (e) requires the Secretary to operate Rodman Dam to assure the integrity of Lake Ocklawaha and forbids the Secretary to operate Eureka Lock and Dam in a manner which would flood any new lands.

Subsection (f) requires the Secretary to purchase all lands and interests held by the Canal Authority within the canal right-of-way at the purchase price paid by the Authority, plus interest. In addition, the Secretary is required to reimburse the Authority for lands and interests transferred to the Secretary prior to enactment of this act.

The Secretary is required to operate and maintain all lands and facilities acquired under this subsection. Finally, the canal authority is required to, by a specified formula, make payments to the counties of Duval, Clay, Putman, Marion, Levy, and Citrus, totaling $32,000,000.

Deauthorization of the uncompleted components of the barge canal shall not become effective until the State of Florida enacts laws to insure that lands and interests under subsection (b) will continue to be held by the State or Canal Authority to carry out the objectives of the section, assure that the State will never transfer any lands of the Ocala National Forest to anyone other than the Federal Government, and assure that the interests in lands held by the State are sufficient to carry out the purposes of this section.

SECTION 336

This section authorizes the Secretary to dismantle and remove the center span of the India Point Railroad Bridge located in Providence, Rhode Island. The removal of this structure will alleviate a hazard to navigation now existing in the Seekonk River. The total Federal cost on this work will not exceed $500,000, and those revenues derived from the sale of scrap from the structure will be returned to the treasury.

TITLE IV—DAM SAFETY

Title 4 contains provisions which are designed to assist and encourage programs to increase the safety of non-Federal dams. This title amends the National Dam Inspection Act (Public Law 92-367) to encourage and assist the development of state dam safety programs, establishes a National Dam Safety Review Board, and authorizes a program of research into innovative dam safety inspection techniques.

SECTION 401(a)

One of the most significant Federal actions with regard to non-Federal dam safety problems has been the establishment of the National Inventory of Dams. The inventory has proven valuable for both Federal and State dam safety efforts.

This subsection requires that dams whose failure would result in loss of human life or significant property damage, be included in the National Inventory of Dams and come under the effect of the amendments in this title, even if they fail to meet the minimum size criteria set forth in Public Law 92-367.

SECTION 401(b)

This subsection amends Public Law 92-367 and adds eight new sections to that law as follows:

Section 7

This new section authorizes the Corps of Engineers to administer a new matching grant program to the states. For each of five years, beginning in fiscal year 1986, $13,000,000 would be allocated on a

matching basis to states that have or will develop dam safety programs meeting the requirements of the new section 8, also created in this Title. One-third of this Federal money is to be equally divided among those states and two-thirds is to be distributed according to the number of dams on the National Inventory in those States. In no event would any State receive more than 50 percent of the costs needed to implement an approved dam safety program.

Section 8

A new section 8 establishes criteria that a State's dam safety program must meet to be eligible for funding under the preceding section.

To determine if a State is eligible for section 7 funds, the Secretary must establish that a State has adequate procedures to review dam construction plans, to assure the safe construction and operation of dams, and to perform dam inspections. The State must also have the authority to require modifications necessary to assure the safety of any non-Federal dam, establish emergency plans and procedures for any potential dam failure, and assure that necessary safety repairs on dams will be undertaken by responsible parties. It must also have a system to make emergency funds available, and to take immediate measures to protect human life and property in dam related emergency situations.

These criteria are modeled after provisions of the "Model State Dam Safety Law" developed by the United States Committee on Large Dams.

Any State program seeking section 7 funds is approved automatically within 120 days, unless the Secretary determines that the program fails to meet the criteria of this section. In such cases, the secretary shall immediately notify the State of its decision in writing.

The Secretary is also required to review, with the assistance of the National Dam Safety Review Board created in section 9, the implementation and effectiveness of approved State dam safety programs. The Secretary shall revoke a State's funding under section 7 if that State's program is found to be inadequate by the National Dam Safety Review Board. Funds may only be renewed when the State's program has been reapproved.

Section 9

This new section establishes a seven-Member National Dam Safety Review Board consisting of one representative each from the Corps of Engineers, the Bureau of Reclamation, the Tennessee Valley Authority, the Soil Conservation Service (the four primary Federal dam construction agencies), and the Federal Emergency Management Agency. In addition, two members of the Board are to be selected by the President to represent States having dam safety programs approved under section 8. Although no term has been set for their appointment, it is expected that the State members will be rotated every two or three years to insure the representation of various regions of the country. In selecting the two State members, the President should seek the advice of the Association of State Dam Safety Officials.

The Board is responsible for reviewing and monitoring the performance of the States under this title and advising the Secretary in their evaluation of the States' dam safety programs.

The Federal Emergency Management Agency has an important existing role as the coordinating Agency for the dam safety efforts of Federal agencies and encourages States to develop effective dam safety programs. While FEMA's non-Federal dam safety programs receive only modest funding (about $500,000 annually), its work has been, and remains, valuable and should continue. To the extent there is some overlap between the new programs authorized in this title and FEMA's existing programs, FEMA should seek to redirect its efforts in a manner which is complementary to this new program.

This legislation is in no way intended to supersede or affect the work of the Interagency Committee on Dam Safety or FEMA's role as Chair of this interagency Committee.

Section 10

This new section requires that any Federal agency that owns, operates, or plans to construct a dam, consult with the appropriate State or States on the design and safety of the dam and allow State officials to participate in any safety inspections of that dam.

While this section confers no actual decision-making role on the States regarding Federal dam construction or design, the Federal agencies should give full consideration to the views of the State on the safety related features of a Federal dam.

Section 11

This new section addresses a serious problem for many States in establishing and maintaining effective dam safety programs: a lack of adequately trained personnel. This section authorizes the Secretary to provide training for State dam safety inspectors if the requesting State has, or is developing, a dam safety program under Section 8. Under this section $500,000 is authorized for each of the fiscal years 1986 through 1990.

The Corps of Engineers possesses a great deal of expertise in all aspects of dam safety and formerly conducted training sessions for state personnel pursuant to authority which has expired.

Section 12

This new section authorizes $1,000,000 annually for five years for the Secretary, in cooperation with the National Bureau of Standards, to undertake research and development on improved techniques and equipment for dam safety inspections and monitoring.

The Secretary is also instructed to provide for State participation in this research, and is required to report periodically to the States and Congress on its progress.

The present methods of dam inspection have, for the most part, remained unchanged for many years. Thorough inspections of most dams and evaluations of their structural integrity involve many man-hours and can be quite expensive. There is a need to develop new instruments and methods to evaluate dams more efficiently. In addition, because even the most thorough inspections by present day techniques cannot fully evaluate a dam's condition, there is

also a need to develop tools and techniques to reveal more about the structural integrity of dams.

To date, much work applicable to dam safety evaluation has been done in other fields, such as mineral exploration and construction technology. These evaluations involve the use of acoustic, thermal, microwave, or mechanical techniques to examine subsurface phenomena. The National Bureau of Standards has expertise in the development and evaluation of this type of instrumentation.

Section 13

This new section authorizes, for each of fiscal years 1986 through 1990, $500,000 to the Secretary for the purpose of maintaining the National Inventory of Dams.

The Inventory of Dams provides information on the location, size, owner, condition, and other data on more than 67,000 dams that could present a hazard in the event of their failure. It is important to keep this information current in order to assist both the States and the Federal agencies in their dam safety efforts.

Section 14

This new section states clearly that funds authorized by this title are to be used only for operating and supporting dam safety programs, not for the construction, reconstruction, or repair of any dam, whether non-Federal or Federal. The purpose of this title is to provide incentives and aid to the States in developing and operating their own dam safety programs—not to assist the States in repairing or reconstructing any structure.

SECTION 402

This section requires that any water resources study report submitted to the Senate Committee on Environment and Public Works and the House Committee on Public Works and Transportation by the Corps of Engineers and the Soil Conservation Service proposing the construction of a dam, must include information on the consequences of its failure and factors which might contribute to that failure.

The risk associated with properly designed, constructed, and maintained dams is minimal, but the science of predicting the probability of any particular dam's failure is undeveloped. Since the consequences of a dam's failure, however unlikely or unpredictable, could be catastrophic, it is reasonable to expect that such information be included in project reports.

Section 403 designates this title as the Dam Safety Act of 1985.

TITLE V—INLAND NAVIGATION

SECTION 501

Monies in the Inland Waterways Trust Fund began to accumulate in 1980, when the Federal government began to collect a barge fuel tax to be deposited in that fund. This section provides that one-half of the construction costs for the six navigation lock and dam projects authorized in this title will be financed from money

in that Trust Fund. The other half of the costs will come from general revenues.

SECTION 502

This section authorizes five inland navigation lock and dam projects, carrying a total project cost of $757.2 million, as of October 1984. These five projects are as follows:

(1) OLIVER LOCK REPLACEMENT, BLACK WARRIOR-TOMBIGBEE RIVER, ALABAMA

Location.—Black Warrior River, within the city of Tuscaloosa, Alabama.

Purpose.—Shallow-draft navigation.

Problem.—The existing lock creates a constraint to current and projected navigation traffic.

Recommended plan.—A 110 foot by 600 foot lock and dam located about a half mile downstream of the existing lock and dam.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1984.

Total project cost.—$147,211,000.

Benefit/cost ratio.—2.9 to 1 at a discount rate of 8⅜ percent.

(2) GALLIPOLIS LOCKS AND DAM REPLACEMENT, OHIO AND WEST VIRGINIA

Location.—In the Middle Ohio Valley about 14 miles downstream on the Ohio River from the mouth of the Kanawha River in West Virginia.

Problem.—The present locks at Gallipolis (one 110 foot by 600 foot lock and one 110 foot by 360 foot lock) are small by comparison to other locks on the Ohio River and are inadequate to handle existing river traffic. The location of the locks in a riverbend makes locking conditions difficult and dangerous during moderate to high river levels.

Recommended plan.—Construction of two new locks with dimensions 110 feet by 1,200 feet and 110 feet by 600 feet in a canal which will bypass the existing locks and dam, and a major rehabilitation of the existing dam. In addition, 840 acres of mitigation lands will be purchased.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in January, 1982.

Total project cost.—$256,000,000.

Benefit/cost ratio.—12.2 to 1 at a discount rate of 7⅞ percent.

(3) BONNEVILLE NAVIGATION LOCK, WASHINGTON AND OREGON

Location.—Existing Bonneville Lock and Dam Project on the Columbia River.

Problem.—The existing 76-foot by 500-foot lock is the smallest in the Columbia-Snake River Waterway system and is insufficient to handle existing river tows efficiently. In addition, this lock, if not replaced, is expected to become a traffic bottleneck by 1988 to 1990. The entrance approaches to the existing lock are also hazardous.

Recommended plan.—Construction of a new 86 foot by 675 foot lock, plus entrance channels.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$191,020,000.

Benefit/cost ratio.—1.35 to 1 at a discount rate of 7⅞ percent.

(4) LOCK AND DAM 7 REPLACEMENT, PENNSYLVANIA

Location.—Monongahela River near Greensboro, Pennsylvania.

Problem.—Antiquated and deteriorated facility no longer serves the commercial needs of the river.

Recommended plan.—Replacement of existing lock.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency, August, 1984.

Total project cost.—$95,100,000.

Benefit/cost ratio.—1.9 to 1 at a discount rate of 7⅞ percent.

(5) LOCK AND DAM 8 REPLACEMENT, PENNSYLVANIA

Location.—Monongahela River near Point Marion, Pennsylvania.

Problem.—Antiquated and deteriorated facility no longer serves the commercial needs of the river.

Recommended plan.—Peplacement of existing lock.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency, August, 1984.

Total project cost.—$68,000,000.

Benefit/cost ratio.—1.9 to 1 at a discount rate of 7⅞ percent.

SECTION 503

This section will reimburse the State of New York for a portion of its costs in operating, maintaining, and rehabilitating the New York State Barge Canal. Control and operation of the canal will remain the responsibility of the State of New York.

The Barge Canal consists of four connected subsystems: (1) the Champlain Canal, from Waterford to Whitehall at the head of Lake Champlain; (2) the Erie Canal, from Waterford to Tonawanda; (3) the Oswego Canal, from Three Rivers to Oswego; and (4) the Cayuga-Seneca Canal, from the Erie Canal to Ithaca and Montour Falls.

The system was constructed originally during the 19th Century, then reconstructed to its present configuration in 1918, with 46 locks over 512 miles of waterways. In 1981, the annual cost of operating and maintaining the Barge Canal was $21,000,000.

This section authorizes the Secretary to reimburse the State of New York for 50 percent of the costs of operating and maintaining the canal. The Secretary shall also pay for rehabilitating the canal, except that the Federal contribution toward rehabilitation is limited to 50 percent of spending that year, or $5,000,000, whichever is less.

SECTION 504

This section authorizes a Master Plan for the Upper Mississippi River, including construction of a second lock at Locks and Dam 26

on the Mississippi River, and an assortment of environmental mitigation and enhancement activities to be carried out by the Secretary of the Interior.

Specifically, subsection (d) provides the consent of Congress to the States of Illinois, Iowa, Minnesota, Missouri, and Wisconsin, or any combination of those States, to enter into agreements for cooperative planning on the Upper Mississippi.

Subsection (e) authorizes construction of a second chamber at Locks and Dam 26 on the Mississippi River at Alton, Illinois, at a total cost of $220,000,000. This lock chamber will be 600 feet long and 110 feet wide, and will be added to the 1,200-foot lock now under construction.

Subsection (f) directs the Secretary, in consultation with the Department of Transportation and the States, to monitor traffic on the Upper Mississippi River System to verify the need for future expansion, if any. Such sums as may be necessary to carry out this function are authorized for a period of 10 years.

Subsection (g) authorizes the Secretary of the Interior, working with the appropriate State agencies, to undertake the following programs:

—A wildlife habitat rehabilitation and enhancement program. This effort would involve the planning and construction of projects for aquatic and terrestrial habitat that has been lost or threatened as a result of human activities or natural factors. During the first fiscal year after enactment, $8,200,000 is authorized to Interior, $12,400,000 during the second fiscal year, then $13,000,000 for each of the next eight fiscal years;

—The implementation of a long-term resource monitoring program, at a cost of $7,680,000 in the initial fiscal year, then $5,080,000 yearly for the next nine fiscal years; and

—The development of a computerized inventory and analysis system, at a cost of $40,000 in the initial fiscal year, $280,000 in the second fiscal year, $1,200,000 in the third fiscal year, and $775,000 in each of the next seven fiscal years.

In consultation with the Secretary of the Army, the Department of the Interior shall also implement a program of recreational projects at a cost of $500,000 yearly. Beginning after the computerized inventory is available (probably in fiscal year 1987), the Secretary of the Interior is provided $300,000 in each of the next two fiscal years, then $150,000 in the following fiscal year to assess the economic benefits of those recreational projects.

Consistent with the objective of section 224 of this Act, the habitat rehabilitation and enhancement program for the Upper Mississippi River System must be implemented prior to, or concurrent with, the engineering, design, and construction of the second lock at Locks and Dam 26.

With the exception of the funds for construction of the second chamber, none of the funds authorized in this section are considered to be commercial components of the inland navigation system.

Section 504 is cited as the "Upper Mississippi River System Management Act of 1985."

TITLE VI—HARBOR CONSTRUCTION

SECTION 601

Section 601 requires that non-Federal sponsors pay 50 percent of the cost of the surveying, planning, designing, and engineering costs of any commercial harbor constructed by the Secretary. This is in line with section 223 of this bill.

However, to expedite feasibility studies, this section also allows non-Federal sponsors to undertake such studies at their own expense, then submit them to the Secretary for review. The Secretary is directed to evaluate any study made by a non-Federal sponsor, then submit it to Congress with the Secretary's recommendations. The study must be submitted within 180 days.

This section also requires the costs of studies performed by non-Federal sponsors (as opposed to those performed by the Secretary) to be borne fully by the non-Federal sponsor. If, however, the study results in the construction of the non-Federal sponsor's recommended project, 50 percent of the cost of that study will be credited towards the non-Federal share of the project's construction cost.

This provision is designed to reduce the delay associated with the current authorization and appropriation process in completing studies of harbor projects. In some instances these studies have taken a decade to complete. This provision allows the sponsors of harbor improvements wishing to move forward to do so. These studies will likely be completed much faster than studies requiring Federal funds, providing for earlier consideration by Congress. Sponsors could then proceed with development on their own, consistent with provisions of this title.

This section and this title applies to projects that would widen channels as well as to deepen them. In many instances wider channels will improve harbor safety—an objective as important as that of improved capacity. Studies under this section, as well as construction under section 602, may prove to be justified on the basis of improved harbor safety.

SECTION 602

This section is the heart of one of the major reforms contained in this legislation: it requires, for the first time in our Nation's history, non-Federal project sponsors to share significantly in the costs of habor improvement projects.

This section states that no construction on a new harbor improvement projects shall not go forward until the appropriate non-Federal sponsor agrees to pay the following percentages of the project's costs, in cash, during the period of construction:

—For construction of an improvement 20 feet deep or less: 10 percent

—For construction of an improvement 20 to 45 feet deep: 25 percent

—For construction of an improvement deeper than 45 feet: 50 percent

In all cases, an additional 10 percent shall be repaid, with interest, over a period of up to 30 years following project completion. The rate of interest is to be set by the Secretary of the Treasury

giving consideration to the average market yield during the preceding year on outstanding marketable obligations of the United States, plus a premium of ⅛ percent for transaction costs. The Secretary of the Treasury is to recalculate the applicable interest rate every 5 years.

This section also provides that the Secretary may count against all or part of the 10 percent repayment amount the local contribution for lands, easements, rights-of-way, dredged spoil disposal sites and relocations. In no case are these costs to count against the cash payment during construction, and in no case would the amount waived exceed 10 percent of project costs.

The cash contribution required by this section to be contributed during the construction period is to be paid in annual installments in proportion to the Federal spending on the project, or under another arrangements satisfactory to the Secretary.

In cases where the construction of a project overlaps depths with different cost-sharing requirements, the project sponsor is required to contribute proportionately. In other words, if an existing harbor, with a depth of 42 feet, is to be deepened to 50 feet, the non-Federal share of the first cost would be a cash contribution of 25 percent of the cost of deepening the harbor to 45 feet and a cash contribution of 50 percent of the incremental cost of the additional deepening to 50 feet. The port would, of course, be responsible for the additional 10 percent repayment over time based on the total project cost.

Harbor improvement projects may proceed to construction in useful increments, subject to the provisions of this act. The non-Federal sponsors of a 42-foot harbor wishing ultimately to deepen the port to 50 feet may first wish to increase the depth to 45 feet, then wait until some future time to deepen further. Alternatively, a port with two channels, one for incoming vessels and one for outgoing vessels, may conclude that its immediate needs require deepening only the outgoing channel. Incremental construction options such as these are permissible under this section.

Under the provisions of this section, harbor projects are considered to have commenced construction if the non-Federal sponsor of the project has entered into a written contract with the Secretary to provide local cooperation requirements including, where applicable, an agreement under section 221 of Public Law 91-611 as amended, as of December 31, 1984.

This section also provides that in the future non-Federal sponsors of harbor projects shall enter into an agreement with the Secretary to:

—provide to the Federal Government lands, easements and rights-of-way, and dredged material disposal areas,
—hold and save the United States free from damages,
—provide to the Federal Government the non-Federal share of project construction costs as defined in this title, and
—be responsible for 50 percent of the incremental cost of maintaining the project below 45 feet below mean low water.

It should be noted that different portions of the same river system will fall within title 5 and title 6. For example, the Mississippi System as far south as Baton Rouge, La., is considered a component of the inland system; below Baton Rouge it would fall under

the provisions of this title. That portion of the Columbia River upstream of Bonneville Lock and Dam (including the actual lock and dam) falls under title 5, while the navigational work downstream from Bonneville Dam comes under this title.

SECTION 603

This section establishes policy for the construction and maintenance of defense-related harbors. The Corps, or other defense agencies, such as the Navy or Coast Guard, may construct harbor improvement projects and continue to maintain those projects, if they are needed to facilitate the movement of Navy and other government-owned defense vessels. This includes ships of the Coast Guard, as well as ships carrying military personnel and materiel.

This section does not authorize the Federal Government to deepen a harbor project simply because that harbor may transit movements of commodities that have a strategic importance, such as oil.

This section will be used infrequently and it provides no new authorities to defense agencies. It simply clarifies existing authorities.

This section also authorizes the Secretary to reduce proportionately the non-Federal share of the cost of a construction harbor, if that project provides benefits directly related to Navy or other defense shipping. Such an arrangement would have to be made prior to the initiation of construction of the project by the non-Federal sponsor. For example, the project for Portsmouth, N.H., would provide some direct defense-related benefits as a result of fuel shipped to an Air Force base.

SECTION 604

This section authorizes non-Federal sponsors to undertake navigation improvements in harbors subject to obtaining the necessary Federal and State permission in advance of construction.

At the request of non-Federal sponsors planning to undertake harbor improvements, the Secretary is authorized to undertake the necessary studies, provided the non-Federal sponsors furnish the necessary funds for these studies as they are being conducted.

The Secretary is further authorized to complete and transmit to appropriate sponsors any harbor study initiated prior to the date of enactment of this act, or, at the request of such sponsors to terminate any such study and transmit the partially completed study to the non-Federal sponsor. Any study requiring completion shall be done at Federal expense, subject to appropriation acts.

Where pipelines, cable, and related facilities must be relocated because non-Federal sponsors are constructing a harbor improvement under this section, such relocation or alteration cost shall be shared 50–50 between the non-Federal project sponsor and pipeline or cable owner. The full costs of upgrading or improving any such pipeline or cable shall be borne by the pipeline or cable owner. The costs of relocations for a Federal project remain the responsibility of the pipeline or cable owners.

Under subsection (e), the Secretary may reimburse non-Federal sponsors, subject to appropriation acts, for the Federal share, without interest, of the total costs of any commercial channel or harbor

improvement, or separable element of such project is conducted by the non-Federal sponsor in a manner approved by the Secretary. This can be done only if the project was authorized previously for Federal construction, and if the non-Federal sponsor agrees to pay the non-Federal share, if any, of the operation and maintenance costs of the project.

The Secretary must consider such factors as budget and program priorities, and the potential impact on dredging costs in his review of non-Federal project plans under this subsection.

Subsection (f) clarifies the Federal responsibility for operation and maintenance costs when harbor construction is undertaken by non-Federal sponsors under this section. For projects constructed to a nominal depth of 45 feet or less, the Secretary is responsible for maintenance costs. For projects constructed to a nominal depth greater than 45 feet, the Secretary would also be responsible for 50 percent of the incremental maintenance below 45 feet. In all cases, the Secretary must certify that the project is constructed in accordance with appropriate engineering and design standards for a project to be eligible for Federal maintenance funds.

These provisions, and those of section 605 are intended to provide a wide degree of flexibility for future harbor improvement projects. The sponsors of such projects would be in a position to study and construct such improvements themselves, to pay the Secretary for necessary studies which they may not be able to do themselves and then construct the project, or even construct an authorized project on their own with the potential, but not a guarantee, for reimbursement of the Federal share of such project as if the Federal Government done the project construction.

This flexibility is necessary because the level of Federal funding for such projects is unlikely to increase dramatically in the near future. If needed harbor improvements are to be made, in many cases they can go forward only if non-Federal sponsors assume the leadership in development of the project. It is only sensible to allow non-Federal sponsors of harbor improvements to proceed on their own if they choose to do so.

SECTION 605

This section creates a fast-track permitting process for non-Federal construction of harbor improvement projects. It consolidates into a two-year period the processing of all permits that may be required prior to construction of any harbor improvement.

The purpose of this section is to give a non-Federal sponsor a date certain by which to expect decisions on all Federal permits necessary for harbor improvements. To the extent possible, State and local authorities will be included in the joint review process. The section defines the responsibilities of both the Federal agencies and the permit applicant, designates the Corps of Engineers as the lead agency, and provides for progress reports to Congress in an effort to avoid delays in meeting the schedule of compliance.

First, this section requires the Secretary of the Army to initiate procedures to establish a schedule of compliance for the necessary Federal permits. The Secretary will commence such activities upon

receipt of notice from a non-Federal sponsor that it intends to construct new harbor and related facilities.

Second, within 15 days of receipt of this notification, the Secretary must publish a notice in the Federal Register and notify all affected State and local agencies of the intent to initiate the Federal permit process, requesting their cooperation in the consolidated review of the permit application.

If, within 30 days of that notification, the non-Federal agencies notify the Secretary of their willingness to participate in the consolidated permitting process, they will be included in the review agreement. Within 90 days, the Secretary must enter into an agreement with affected Federal agencies and any State or local agencies seeking to be parties to the agreement. This agreement will be for the purpose of establishing a schedule for all necessary permits.

Third, a consolidated review process is defined. To the extent possible, the agreement outlined above must consolidate hearing and comment periods, and data collection, and report preparation procedures. The agreement must also define the responsibilities of the non-Federal interest with respect to data development and information necessary to process each permit.

The agreement will include a set date by which the applicant and the Congress will be informed whether there is a reasonable likelihood that the permits will be granted. The schedule can be extended for 120 days to revise the original application to meet the objections of the Federal agencies. This is the only point at which the schedule may be modified.

Fourth, six months prior to the final day of the schedule, the Secretary shall submit a progress report to Congress summarizing all work completed to date and detailing the schedule for completing all remaining work. Such notice is intended to signal any potential problems in meeting the compliance schedule and provide adequate time to resolve these problems to assure that the schedule is met.

Fifth, the Secretary of the Army must notify the non-Federal sponsor no later than the final day of the compliance schedule as to whether the permit or permits are issued.

Additionally, this section requires the Secretary to submit a report to Congress by March 1, 1987, describing the time required to issue Federal permits related to harbor improvements, and make recommendations for reducing the time necessary to issue such permits.

SECTION 606

This section authorizes the non-Federal sponsor of a harbor construction project to collect fees in order to recover the cost of its share of a project's costs, plus 50 percent of the incremental maintenance costs of maintaining harbors below 45 feet, if appropriate.

The section provides non-Federal sponsors with a means to recover its obligations for construction work, including associated administrative expenses, through the imposition and collection of fees for the use of such projects by vessels in commercial waterway transportation. The precise nature of such fees, the fee structure and schedule, and the frequency with which such fees should be collect-

ed is left entirely to the discretion of the appropriate non-Federal sponsors, pursuant to the terms of this section and State law.

It must be stressed that nothing in this section requires a user fee. The whole cost, or partial cost, of providing the non-Federal share of project costs, may be carried as a general expense of local government, if non-Federal sponsors so decide. These fees are non-Federal fees. Authorizating non-Federal interests to charge them is necessary to provide many non-Federal sponsors the flexibility to share in the cost of navigation improvements to harbors.

The provision recognizes that a link should exist between the imposition of a local user fee on vessels and cargoes and the benefits to those specific vessels and cargoes resulting from the improvement or maintenance of a project.

Several exemptions from the fees authorized by this section are provided: No fees shall be imposed on vessels owned and operated by the United States, any U.S. political subdivision, or any vessel owned or operated by any other nation when the vessel is not engaged in commercial transportation. No fees will be imposed on vessels engaged in dredging activities or those involved strictly in an intraport movement, or a vessel with design draft of 14 feet or less, if the harbor improvement for which the fee would be assessed goes deeper than 20 feet.

SECTION 607

This section authorizes the appropriation of funds from the Harbor Maintenance Trust Fund, established in part B of title 8 of this Act, to pay for 100 percent of the annual eligible operation and maintenance costs of the elements of the St. Lawrence Seaway, operated and maintained by the St. Lawrence Seaway Development Corp., and up to 40 percent of the annual operation and maintenance costs assigned to commercial navigation of all channels and harbors of the United States and all Great Lakes navigation improvements operated or maintained by the Secretary of the Army.

In addition, this section authorizes appropriations from the general fund of the Treasury such sums as are needed in each fiscal year to cover the balance of operation and maintenance costs not provided by payments from the Harbor Maintenance Trust Fund.

SECTION 608

This section provides several definitions for this Act as follows:

The term "commercial channel or harbor" means any channel or harbor, or element thereof, which is not considered an inland waterway, is open to public navigation, and is capable of being used by commercial vessels in the transportation of domestic or foreign waterborne commerce, or to the depths and widths of the construction which was initiated by non-Federal sponsors after July 1, 1970, and prior to January 1, 1981, or to the depths and widths that may be constructed under the terms of sections 602 and 604, of this title. This term does not mean local access or berthing channels or channels or harbors constructed or maintained by non-public interests. For the Columbia River, Oregon and Washington, this term includes the channels only up to the downstream side of Bonneville lock and dam.

(2) The term "non-Federal sponsor" means, with respect to a channel or harbor improvement project, a non-Federal public body which has entered into a written agreement with the Secretary to provide the non-Federal share of operation and maintenance costs, or construction costs, for the projects and which has the meaning such term has under section 221 of Public Law 91-611, as amended.

(3) The term "eligible operations and maintenance" means all operations, maintenance, repair and rehabilitation, including maintenance dredging reasonably necessary to maintain the nominal depth and width of any commercial channel or harbors located within the Great Lakes, except when applied to the Saint Lawrence Seaway and any Great Lakes navigation improvement, the term includes all operations, maintenance, repair and rehabilitation, including maintenance dredging, reasonably necessary to keep such Seaway or navigation improvements operated or maintained by the Saint Lawrence Seaway Development Corporation or the United States in operation and reasonable state of repair.

This term does not include providing any lands, easements, rights-of-way or dredged material disposal areas, or performing relocations required for project operations and maintenance.

(4) the term "Great Lakes navigation improvement" means any lock, channel, harbor or navigational facility in the Great Lakes of the United States or their connecting waterways, but shall not include the Saint Lawrence Seaway;

(5) The term "nominal depth" means, in relation to the stated depth for any navigation improvement project, such depth, including any greater depths which must be maintained for any channel or harbor or element(s) thereof included within such project in order to ensure the safe passage at mean low tide of any vessel requiring the stated depth. With respect to operations and maintainance of channels authorized prior to the date of enactment of this Act, the term "nominal depth" includes such anchorages necessary to ensure safe passage of vessels utilizing such channels.

(6) The term "United States" means the States of the United States, the District of Columbia, and the territories or possessions over which the United States exercises jurisdiction.

SECTION 609

This section authorizes for construction 32 harbor projects having a total cost—both Federal and non-Federal—of $2.7 billion as follows:

(1) MOBILE HARBOR, ALABAMA

Location.—The extreme southwest corner of Alabama, at the City of Mobile, on the west bank of the Mobile River.

Purpose.—Deep-draft navigation.

Problem.—Current problems relate to efficiency of operation, maneuvering difficulties, and higher transportation costs resulting from the need to use smaller and/or light-loaded vessels.

Recommended plan.—Deepen existing channel to 55 feet and widen it to 550 feet; construct anchorage area and turning basin near harbor facilities; creation of 1,710 acres of mitigation measures.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981. Draft supplemental EIS addressing disposal of dredged material filed with the EPA in March, 1985.

Total project cost.—$468,933,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 8⅜ percent.

(2) KODIAK HARBOR, ALASKA

Location.—City of Kodiak on the northeast shore of Kodiak Island in southcentral Alaska.

Purpose.—Deep draft navigation.

Problem.—Lack of protected mooring space causes inefficiencies and high operating costs for commercial fishing vessels in the Kodiak area.

Recommended plan.—Construction of a 1,900-foot long rubble-mound break-water and a 20-foot deep access channel for protection of, and entrance to, a 45-acre moorage area and a 45-acre protected water area.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1978.

Total project cost.—$14,641,000.

Benefit/cost ratio.—2 to 1 at a discount rate of 7⅞ percent.

(3) ST. PAUL ISLAND HARBOR, ALASKA

Location.—Southern tip of St. Paul Island, approximately 800 miles west-southwest of Anchorage, Alaska.

Purpose.—Commercial navigation.

Problem.—Need for a harbor of refuge and other navigation improvements to reduce navigation hazards and economic inefficiencies of harvesting fish.

Recommended plan.—Construction of a 1,800-foot-long breakwater and an entrance channel and maneuvering area 960 feet long, 180 feet wide, and 18 feet deep.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on June 6, 1983.

Total project cost.—$24,756,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 8⅛ percent.

(4) OAKLAND OUTER HARBOR, CALIFORNIA

Location.—Oakland Harbor on the eastern shore of central San Francisco Bay.

Purpose.—Deep draft navigation.

Problem.—Inadequate existing channels results in unsafe and inefficient vessel operation and subsequent higher transportation costs.

Recommended plan.—Deepening to a maximum of 42 feet and widening of existing channels and relocation and widening of the turning basin.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1981.

Total project cost.—$42,400,000.

Benefit/cost ratio.—2.6 to 1 at a discount rate of 7⅞ percent.

(5) RICHMOND HARBOR, CALIFORNIA

Location.—Adjacent to the city of Richmond on the eastern side of the San Francisco Bay.

Purpose.—Deep draft navigation.

Problem.—Existing channel depths (35 feet) and widths are inadequate and result in inefficient and hazardous navigation conditions.

Recommended plan.—Deepening of all channels and basins to 41 feet, widening of channels, enlarging the existing turning basin and construction of a new turning basin.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in May, 1982.

Total project cost.—$43,800,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

(6) SACRAMENTO RIVER, DEEPWATER SHIP CHANNEL, CALIFORNIA

Location.—Sacramento River in Central California from Avon to the Port of Sacramento.

Purpose.—Deep draft navigation and recreation.

Problem.—Existing 30 foot channel depth and channel widths are inadequate to provide efficient and safe passage of ships.

Recommended plan.—Deepening of channel to 35 feet and widening of channel, installation of salinity monitoring stations, authority to construct necessary features for salinity control if necessary, establishment of about 200 acres of wildlife mitigation habitat, and development of 30 acres of recreation facilities.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$125,300,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

(7) NEW HAVEN HARBOR, CONNECTICUT

Location.—North-central shore of Long Island Sound abutting the Cities of New Haven and West Haven, Connecticut.

Purpose.—Deep draft navigation.

Problem.—Existing 35 foot channel and inadequate channel widths result in inefficient and unsafe vessel operation.

Recommended plan.—Deeping of existing channel to 40 feet, widening and realignment of channel, construction of new turning basin, and disposal of dredged material in Morris Cove and at the Long Island Sound Central Disposal Site.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1981.

Total project cost.—$25,900,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

(8) JACKSONVILLE HARBOR, MILL COVE, FLORIDA

Location.—St. Johns River in Jacksonville, Florida.

Purpose.—Navigation and recreation.

Problem.—Shallowing conditions in Mill Cove have been caused by the Corps of Engineers Jacksonville Harbor navigation project.

The shallow depths restrict small boat traffic and adversely affect property values.

Recommended plan.—Enlargement of existing opening to Mill Cove to increase flow, construction of diversion structures, and dredging of a 6 foot deep navigation channel.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$6,575,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

(9) MANATEE HARBOR, FLORIDA

Location.—Southern shoreline of Tampa Bay, Florida near the entrance to the Gulf of Mexico.

Purpose.—Deep draft navigation.

Problem.—Locally constructed 40-foot channel is experiencing continued shoaling and existing widths are inadequate for present traffic. Both of these factors contribute to inefficient and unsafe navigation.

Recommended plan.—Modification of authorized Tampa Harbor Project to provide for 400-foot wide by 40-foot deep Federal channel at Manatee Harbor; construction of enlarged turning basin and diked disposal areas, and creation of 10 acres of shallow bay bottom for mitigation purposes.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1979.

Total project cost.—$16,115,000.

Benefit/cost ratio.—7.7 to 1 at a discount rate of 7⅞ percent.

(10) TAMPA HARBOR, EAST BAY CHANNEL, FLORIDA

Location.—Northeast section of Tampa Harbor between Hillsborough and McKay Bays.

Purpose.—Deep draft navigation.

Problem.—Shoaling within the East Bay channel results in inefficient transportation of cargo.

Recommended plan.—Maintenance by Federal Government of a 300-foot wide by 5,500 foot deep by 34-foot deep navigation channel.

Environmental impact statement.—Environmental assessment contained in final report of May, 1977.

Total project cost.—Not applicable since only maintenance is assumed.

Benefit/cost ratio.—3.6 to 1 at a discount rate of 7⅞ percent.

(11) SAVANNAH HARBOR, WIDENING, GEORGIA

Location.—Chatham County Georgia on the South Atlantic Coast 75 miles south of Charleston Harbor, South Carolina.

Purpose.—Deep draft navigation.

Problem.—Narrow inner harbor channel results in reduced ship speeds and inefficient navigation.

Recommended plan.—Widening of the channel and the existing King's Island Turning Basin.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$19,175,000.
Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

(12) HILO HARBOR, HAWAII

Location.—City of Hilo on the east coast of the Island of Hawaii.
Purpose.—Deep-draft navigation.
Problem.—Inadequate channel depths to safely and efficiently handle modern vessels.
Recommended plan.—Deepening the Entrance channel from 35 feet to 39 feet and widening it to 440 feet and deepening the turning basin to 38 feet.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency on October 7, 1983.
Total project cost.—$4,390,000.
Benefit/cost ratio.—1.9 to 1 at a discount rate of 8⅜ percent.

(13) MISSISSIPPI RIVER SHIP CHANNEL, GULF TO BATON ROUGE, LOUISIANA

Location.—Southeastern Louisiana generally along the Mississippi River from Baton Rouge to New Orleans to the Gulf of Mexico.
Purpose.—Deep-draft navigation.
Problem.—Existing navigation channel does not allow for most efficient waterborne transportation. Transportation cost savings from improved navigation would result from project implementation.
Recommended plan.—Deepening of the existing channel in the Mississippi River from 40 feet to 55 feet between Baton Rouge and the Gulf of Mexico and a turning basin at Baton Rouge. Effects of saltwater intrusion would be mitigated by the construction of a sill in the lower portion of the river.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1982.
Total project cost.—$456,000,000.
Benefit/cost ratio.—8.2 to 1 at a discount rate of 8⅜ percent.

(14) GRAND HAVEN HARBOR, MICHIGAN

Location.—East shore of Lake Michigan at Grand Haven, Michigan.
Purpose.—Deep draft navigation.
Problem.—Inadequate channel and turning basin result in unsafe and inefficient vessel operation.
Recommended plan.—Deepening of harbor entrance channel and harbor river channel to a maximum of 29 feet and construction of a new and larger turning basin.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1981.
Total project cost.—$17,200,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(15) MONROE HARBOR, MICHIGAN

Location.—Within the city of Monroe, Michigan.
Purpose.—Deep draft navigation.

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Problem.—Existing channel is inadequate to handle modern ships safely and efficiently.

Recommended plan.—Deepening of the river basin portion of the channel to a maximum of 27 feet, deepening to a maximum of 28 feet and widening of the Lake Erie portion of the channel, construction of a new turning basin and a confined disposal facility, and the creation of a marsh for mitigation purposes.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$139,400,000.

Benefit/cost ratio.—3.3 to 1 at a discount rate of 7⅞ percent.

(16) DULUTH-SUPERIOR HARBOR, MINNESOTA AND WISCONSIN

Location.—Southwestern tip of Lake Superior within the cities of Duluth, Minnesota, and Superior, Wisconsin.

Purpose.—Deep draft navigation.

Problem.—The westerly portions of the North and South Channels, the Upper Channel and the Minnesota Channel, all vary from 21 to 23-foot depths, resulting in inefficient vessel operation.

Recommended plan.—Deepening the channels to 27 feet, providing a turning basin of 1,500 feet, and constructing an upland confined disposal facility.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on July 15, 1983.

Total project cost.—$12,200,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 8⅛ percent.

(17) GULFPORT HARBOR, MISSISSIPPI

Location.—Mississippi Sound, 78 miles east of New Orleans.

Purpose.—Deep draft navigation.

Problem.—Inadequate channel depths and widths result in safety and efficiency problems.

Recommended plan.—Deepening to a maximum of 38 feet and widening of existing channel.

Environmental impact statement.—Supplemental information to revised draft statement was filed with the Environmental Protection Agency in December, 1978.

Total project cost.—$78,968,000.

Benefit/cost ratio.—1.08 to 1 at a discount rate of 7⅛ percent.

(18) WILMINGTON HARBOR, NORTHEAST CAPE FEAR RIVER, NORTH CAROLINA

Location.—City of Wilmington in southeastern North Carolina.

Purpose.—Deep draft navigation.

Problem.—Need for improved and extended channels to meet expanding port development and need to protect and maintain surrounding productive and rare land and estuarine ecological systems.

Recommended plan.—Deepening to a maximum depth of 35 feet and widening of ship channel and turning basin, and purchase of about 2,800 acres of mitigation lands.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1980.
Total project cost.—$9,718,000.
Benefit/cost ratio.—2.5 to 1 at a discount rate of 7⅛ percent.

(19) PORTSMOUTH HARBOR AND PISCATAQUA RIVER, NEW HAMPSHIRE, AND MAINE

Location.—Mouth of Piscataqua River 45 miles Northeast of Boston.
Purpose.—Deep draft navigation.
Problem.—Inadequate channel widths in certain areas result in unsafe and inefficient navigation conditions.
Recommended plan.—Widening of the existing Federal project in appropriate locations.
Environmental impact statement.—Addendum to finding of No Significant Impact was submitted to the Environmental Protection Agency in 1983.
Total project cost.—$21,700,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅛ percent.

(20) BARNEGAT INLET, NEW JERSEY, PHASE I GDM

Location.—Barnegat Inlet is located on the Atlantic Coast of New Jersey approximately 32 miles northeast of Atlantic City.
Purpose.—Navigation.
Problem.—Existing project failed to stabilize and resulted in an unsafe navigation channel for commercial and recreational craft.
Recommended plan.—Realign south jetty, deepen and widen navigation channel, remove shoal material, and construct fishing facilities.
Environmental impact statement.—Final supplemental filed with the Environmental Protection Agency in July 1982.
Total project cost.—$36,435,000.
Benefit/cost ratio.—2.0 to 1 at a discount rate of 8⅛ percent.

(21) GOWANUS CREEK, CHANNEL, NEW YORK

Location.—Gowanus Creek connects the New York Harbor entrance with the interior of the county of Brooklyn, New York City.
Purpose.—Deep draft navigation.
Problem.—Inadequate channel depths result in navigation inefficiency.
Recommended plan.—Deepening of the channel to a maximum of 40 feet.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.
Total project cost.—$3,440,000.
Benefit/cost ratio.—3.8 to 1 at a discount rate of 7⅞ percent.

(22) KILL VAN KULL AND NEWARK BAY CHANNELS, NEW YORK

Location.—New York Harbor at New York City.
Purpose.—Deep draft navigation.
Problem.—Inadequate channel depths and widths result in inefficient and unsafe passage for ships.

Recommended plan.—Deepening to a maximum of 45 feet and widening of existing Federal channels and construction of a new turning basin at Port Elizabeth.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1981.

Total project cost.—$248,100,000.

Benefit/cost ratio.—6.9 to 1 at a discount rate of 7⅞ percent.

(23) LORAIN HARBOR, OHIO

Location.—City of Lorain along the lower 3 miles of the Black River.

Purpose.—Deep-draft navigation.

Problem.—Existing channel bends and alignment result in transit delays and vessel light-loading.

Recommended plan.—Constructing two bank cuts to widen channel bends and straighten the channel alignment between the railroad bridge and 21st Street Bridge, and a bank cut to widen the upriver turning basin.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on November 9, 1984.

Total project cost.—$5,500,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 8⅜ percent.

(24) SAN JUAN HARBOR, PUERTO RICO

Location.—North coast of Puerto Rico at the City of San Juan.

Purpose.—Deep draft navigation.

Problem.—Inadequate depths and widths result in hazardous and inefficient use of the harbor.

Recommended plan.—Deepening to a maximum of 40 feet and widening of a number of harbor channels and features and mitigation for the loss of 22 acres of shallow-bottom habitat.

Environmental impact statement.—Final statement filed with the Council on Environmental Quality in August, 1976.

Total project cost.—$86,334,000.

Benefit/cost ratio.—5.8 to 1 at a discount rate of 7⅞ percent.

(25) CHARLESTON HARBOR, SOUTH CAROLINA

Location.—Midway along the South Carolina coast at Charleston, South Carolina.

Purpose.—Deep draft navigation.

Problems.—Present channel is inadequate to safely and efficiently carry existing traffic.

Recommended plan.—Deepening to a maximum of 42 feet and some widening of present project features and mitigation for 10 acres of lost wetland.

Environmental impact statement.—Final supplemental to final statement was filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$84,032,000.

Benefit/cost ratio.—1.92 to 1 at a discount rate of 7⅞ percent.

(26) WANDO RIVER, CHARLESTON HARBOR, SOUTH CAROLINA

Location.—Midway along the South Carolina coast at Charleston.
Purpose.—Deep-draft navigation.
Problem.—Deepening the Wando River Channel is necessary to provide transportation cost savings.
Recommended plan.—Maintenance by the Federal Government of a locally dredged 35-foot-deep and 450-foot-wide channel and subsequent deepening to 40 feet when other essential parts of the Charleston Harbor project are deepened to 40 feet.
Environmental impact statement.—An environmental assessment is contained in the District Report dated January, 1984.
Total project cost.—$3,561,000.
Benefit cost ration.—2.0 to 1 at a discount rate 8⅜ percent.

(27) BRAZOS ISLAND HARBOR, TEXAS

Location.—Southernmost tip of Texas 5 miles from the Mexican border.
Purpose.—Deep draft navigation and recreation.
Problems.—Inadequate channel widths and depths cause unsafe and inefficient vessel operation. There is also the need for recreational facilities.
Recommended plan.—Deepening to a maximum of 42 feet and widening of existing channels, enlargement of turning basin, and construction of a park.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.
Total project cost.—$31,417,000.
Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

(28) HAMPTON ROADS AND VICINITY, VIRGINIA (DRIFT REMOVAL)

Location.—Hampton Roads including the Harbors of Norfolk and Newport News, Virginia.
Purpose.—Drift and debris removal.
Problem.—The presence of floating debris originating from deteriorating waterfront structures, abandoned vessels, and loose shoreline debris impedes navigation efficiency and poses a significant safety risk.
Recommended plan.—A combination of structural and non-structural measures to include: (1) clearing the harbor area of floating debris, (2) removing sources of debris such as dilapidated piers, (3) landfilling the drift and debris at a disposal facility, and (4) preventing the creation of future sources of drift and debris.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency on March 4, 1983.
Total project cost.—$6,870,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 8⅛ percent.

(29) NORFOLK HARBOR, VIRGINIA

Location.—Hampton Roads, which is a 25-square mile area serving the ports of Norfolk, Portsmouth, Chesapeake, Newport News, and Hampton.
Purpose.—Deep-draft navigation.

Problem.—Navigation inefficiencies caused by inadequate channel depths.

Recommended plan.—Deepening the existing 45-foot channels to 55 feet, constructing a new 57-foot-deep Atlantic Ocean Channel and three fixed mooring areas, deepening the existing 40-foot Elizabeth River channels to 45 feet, and deepening the existing 35-foot portion of Southern Branch of Elizabeth River to 40 feet up to river mile 17.5 and providing an 800-foot turning basin at that point.

Environmental impact statement.—Final supplement filed with the Environmental Protection Agency in June 1985.

Total project cost.—$538,000,000.

Benefit/cost ratio.—3.6 to 1 at a discount rate of 8⅜ percent.

(30) CROWN BAY CHANNEL—SAINT THOMAS HARBOR, VIRGIN ISLANDS

Location.—South coast of the island of St. Thomas in the Virgin Islands.

Purpose.—Deep draft navigation.

Problems.—Inadequate channel results in unsafe and inefficent transportation conditions. Crown Bay is presently a natural embayment.

Recommended plan.—Construction and maintenance of a new 38-foot deep channel and 36-foot deep turning basin.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in August 1981.

Total project cost.—$8,124,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

(31) BLAIR AND SITCUM WATERWAYS, TACOMA HARBOR, WASHINGTON

Location.—Tacoma Harbor in Puget Sound in the northwest corner of Washington.

Purpose.—Deep draft navigation.

Problems.—Blair Waterway is too shallow and narrow at the East 11th Street Bridge to permit safe and efficient ship passage. Sitcum Waterway is presently maintained by local interests.

Recommended plan.—Deepening of the Blair Waterway to a maximum of 45 feet and replacement of the East 11th Street Bridge, and assumption of maintaining by the Federal Government of the locally constructed Sitcum Waterway.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November 1978.

Total project cost.—$35,816,000.

Benefit/cost ratio.—2.5 to 1 at a discount rate of 7⅞ percent.

(32) GRAYS HARBOR, WASHINGTON

Location.—Gray Harbor County in southwestern Washington.

Purpose.—Deep draft navigation.

Problems.—Present channel is inadequate to safely and efficiently handle modern ships.

Recommended plan.—Deepening of a maximum of 46 feet and widening of the Grays Harbor ship channel.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in April, 1983.

Total project cost.—$93,187,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

TITLE VII

This title establishes cost-sharing policies for the water resources development program authorities of the Secretary, other than commercial navigation. Commercial navigation cost-sharing is addressed in titles 5, 6, and 8.

In addition, this title authorizes for construction 77 flood control projects, 10 hydroelectric projects, 18 shoreline erosion control projects, 11 mitigation projects, 10 inland and recreational harbor projects, 1 bank stabilization project, and 2 demonstration projects.

The total cost for these projects—both the Federal and the non-Federal shares—is $7.4 billion.

SECTION 701

This section establishes new cost-sharing policy, setting the share of total project costs that the non-Federal project sponsors must agree to contribute in order to secure construction of the project by the Secretary.

This section delineates the percentage of costs for each project purpose that non-Federal interests are required ultimately to provide (the cost-share), and how that non-federal share is to be financed.

Any water resources project, or separable element of a project, that was not under construction by June 30, 1985, is subject to the new cost-sharing policy outlined in this title. These projects or elements will be initiated only after non-Federal project sponsors agree to pay all of the operation and maintenance costs of the project, plus agree to share construction costs as described here.

Projects currently operated and maintained by the Corps of Engineers at Federal expense will continue to remain a Federal responsibility.

The cost-sharing requirements of this title, by project purpose, are as follows:

—Urban and rural flood prevention: 25 to 35 percent.
—Hydroelectric power: 100 percent.
—Municipal and industrial water supply: 100 percent.
—Agricultural water supply: 35 percent.
—Recreation, including recreational navigation: 50 percent.
—Hurricane and storm damage reduction: 35 percent.
—Aquatic plant control: 50 percent.

Three principles govern the basic cost-sharing approved by the Committee:

1. Local sponsors will be responsible for all necessary lands, easements, rights-of-way, and relocations for project development.

2. A minimum cash contribution of 5 percent of total costs will be required during construction of all structural flood control projects.

3. The repayment of any cost-sharing subsequent to project construction for all types of non-commercial navigation work will be standaridized.

Lands

Sponsors of all types of projects under this title must agree to contribute all necessary lands, easements, rights-of-way, and relocations necessary for project development regardless of their percentage of total project costs.

Repayment

When the contribution of lands, easements, rights-of-way, and relocations is less than the required percentage of total project costs, non-federal sponsors may contribute the difference during project construction, or repay the difference over a period not to exceed 30 years, with interest. In cases of repayment, the rate of interest is to be set by the Secretary of the Treasury giving consideration to the average market yield during the preceding year on outstanding marketable obligations of the United States, plus a premium of ⅛ percent for transaction costs. The Secretary of the Treasury is to recalculate the applicable interest rate every 5 years.

Initial payment towards the non-federal cost-share may be delayed for one year at the request of the project sponsor. Work undertaken by a non-federal sponsor shall be considered to satisfy cost-sharing requirements when such work has been approved in advance according to procedures set by the Secretary under section 134(a) of Public Law 94-587, as amended by this bill. Credit may only be given for non-Federal cash spent on such work.

Flood control

Cost-sharing and financing of flood control projects constitute the most complex provisions in this title. As these provisions are designed to offer flexibility to non-Federal sponsors, they require detailed explanation.

As with other types of projects under this title, the basic requirements for every flood control project will include contribution of all lands, easements, rights-of-way, and relocation costs by non-Federal sponsors. This will be the case whether a dam, levee, or channel is constructed.

In addition, 5 percent of total costs must be contributed in cash during project construction toward the basic non-federal share of 35 percent on a flood control project. The 35 percent non-Federal share for a flood control project can be reduced to 25 percent when the entire non-federal contribution—lands and at least 5 percent in cash—is made during the construction period.

The cash contribution made during project construction must be in proportion to annual Federal expenditures or be made under other arrangements acceptable to the Secretary. Three examples illustrate the new policy:

> *Case A.*—Total project cost is $100 million, with lands, etc., representing $20 million of this total. Local interests are required to contribute 5 percent cash ($5 million) during construction. Under the provisions of this title, this overall contribution of $25 million represents the total non-federal cost-share required. This illustrates Section 701(a)(1)(B) of this Act (25 percent of all costs contributed during construction.)

Case B.—Total project cost is $100 million, with lands, etc., involving $60 million of this total. (This is for illustrative purposes. Normally lands, etc., are a much smaller percentage of project costs.) Local interests, of course, are required to contribute 5 percent cash ($5 million) during construction. Under the provisions of this title, this overall contribution of $65 million represents the total non-federal cost-share required. No rebates are provided. No post-construction payment is required. This illustrates section 701(a)(1)(A) of this Act.

Case C.—Total project cost is $100 million and lands, etc., are $10 million of this total. Local interests are required to contribute 5 percent cash ($5 million) during construction. Thus, the initial contribution equals 15 percent of the project's costs, giving the non-Federal sponsor two options. The sponsor can contribute the additional $10 million during construction, raising its total share to 25 percent, or it can repay an additional $20 million, with interest, over 30 years, beginning when the project is completed, raising its cost-share to 35 percent. This illustrates section 701(a)(1)(C) of this Act, and is the most common situation.

The new policy provides local sponsors with a maximum amount of flexibility to meet the new requirements.

Subsection 701(a)(1)(D) provides that where flood control benefits are provided through the purchase of land solely for non-structural solutions, the requirement for 5 percent cash during construction is waived proportionally.

Subsection 701(h) requires that any cost-sharing agreement for flood protection, rural drainage, or agricultural water supply under this title be consistent with the ability of the non-federal sponsor to pay. This determination is to be made by the Secretary under procedures established by the Secretary.

To the extent that non-Federal sponsors have the financial ability to contribute to the costs of water resource project construction, as outlined in this section, they will be required to do so. In this way the efficiency of the Federal development program will be strengthened and scarce Federal budget resources provided to assure maximum flexibility.

Beneficial projects should not, however, be rejected simply because non-Federal interests lack the resources to finance a share of development costs. Since cost-sharing provisions of this title should not prove burdensome, ability-to-pay determinations reducing the non-Federal share are quite unlikely.

Other project purposes

Beach erosion control measures are activities which provide other types of project benefits. For public beaches, the costsharing on erosion control will be the percentage required for the benefits which result from controlling the erosion. For example, if the control measures are directed at recreation needs, cost-sharing will be 50 percent. In the case of storm damage reduction, the non-Federal cost-sharing will be 35 percent. The cost-sharing required for erosion control measures at private beaches, whatever benefits are provided, will be 100 percent non-Federal.

This section reaffirms long-established policies governing the marketing of hydroelectric power developed at Federal projects. There is to be no change in the existing policy of contracting, marketing, repayment, or any other aspect of hydroelectric power developed at Federal projects.

The following table summarizes the provisions of this section in comparison with current cost-sharing policy:

TITLE VII

Project purpose	Present non-Federal share		New non-Federal share	
	Cost-share	Financing options	Cost-share	Financing options
Urban and rural flood protection	For a dam 0 percent; if other structural solutions lands, easements, rights-of-way; if nonstructural 20 percent; rebates if lands, easements, etc., exceed 50 percent.	No repayment.	5 percent cash during construction, plus all lands, easements, etc. Where this total is less than 25 percent either an additional cash contribution can be made during construction to equal 25 percent or an additional contribution can be made over time to equal 35 percent. An ability to pay determination is made; 5 percent cash waived if nonstructural.	30 year maximum repayment at Federal borrowing rate plus ⅛ percent for transaction costs.
Hydroelectric power	100 percent.	Repayment in accord with multiple statutes.	No change in existing law.	
Municipal and industrial water supply	100 percent.	50 year maximum repayment with interest set at a nonmarket rate; option of 10 year interest free development period.	100 percent.	30 year maximum repayment at Federal borrowing rate, plus ⅛ percent for transaction costs.
Agricultural water supply	50 percent (lands, easements, etc., included).	During construction.	35 percent (lands, easements, etc., included). An ability to pay determination is made.	30 year maximum repayment at Federal borrowing rate, plus ⅛ percent for transaction costs.
Recreation, including recreational navigation.	50 percent (lands, easements, etc., included).	During construction, or 50 year maximum repayment, with interest set at a nonmarket rate.	50 percent (lands, easements, included).	30 year maximum repayment at Federal borrowing rate, plus ⅛ percent for transaction costs.
Hurricane and storm reduction	30 percent (lands, easements, etc., included).	During construction.	35 percent (lands, easements, etc., included).	30 year maximum repayment at Federal borrowing rate, plus ⅛ percent for transaction costs.
Aquatic plant control	30 percent (lands, easements, etc., included).	During construction (usually 1 year).	50 percent (lands, easements, etc., included).	30 year maximum repayment at Federal borrowing rate, plus ⅛ percent for transaction costs.

Further explanation: The new standardized repayment time period is flexible. In cases where the non-Federal share is not paid during the construction period, repayment is to be in a maximum of 30 years. It is anticipated that any payment which may be required for aquatic plant control or hurricane and storm damage reduction, will be made in the same general time frame as in the past.

FLOOD CONTROL

The following flood control projects are authorized by section 702(a):

(1) VILLAGE CREEK, JEFFERSON COUNTY, ALABAMA

Location.—Village Creek flows from eastern Jefferson County through the city of Birmingham to the Black Warrior River.

Purpose.—Flood control.

Problem.—There is serious flooding in the older residential sections of Birmingham.

Recommended plan.—Combination of structural and nonstructural measures including evacuation of 574 structures from the flood plan and excavation of a 2.2-mile channel with attendant modifications to four bridges.

Evironmental impact statement.—Final statement filed with the Environmental Protection Agency in June 1982.

Total project cost.—$28,100,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7½ percent.

(2) THREEMILE CREEK, MOBILE, ALABAMA

Location.—Threemile Creek originates in the western part of Mobile, Alabama, and flows easterly through the city for about 14 miles to enter the Mobile River.

Purpose.—Flood control; recreation.

Problem.—Inadequate channel capacity of Threemile Creek results in major flood damage to the urbanized area of the City of Mobile, Alabama.

Recommended plan.—Enlargement of Threemile Creek for the distance of 5.6 miles and recreational facilities that are compatible with floodplain use.

Environmental impact statement.—The final statement filed with the Environmental Protection Agency in November 1983.

Total project cost.—$19,070,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 8⅛ percent.

(3) EIGHT MILE CREEK, PARAGOULD, ARKANSAS

Location.—Green and Craighead Counties in northeast Arkansas near the city of Paragould.

Purpose.—Flood control; recreation.

Problem.—Major floods have occurred in the basin every 4 to 12 years, most recently, in 1973, damages totalled $12.3 million in 1982 dollars.

Recommended plan.—Channel enlargement on 11.4 miles of Eight Mile Creek and establishment of a green way along one side of the channel.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February 1981.

Total project cost.—$14,950,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(4) FOURCHE BAYOU BASIN, ARKANSAS

Location.—Saline and Pulaski Counties in central Arkansas, predominantly in the city of Little Rock, Arkansas.

Purpose.—Flood control; recreation.

Problem.—Inadequate channel capacity of Fourche Creek results in major flood damage to urbanized area of the city of Little Rock. The last major flood in 1978 caused $17 million in damages.

Recommended plan.—Channel improvement, restriction of future development in the flood plain, and acquisition of 1,750 acres of bottom land for environmental preservation.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March 1981.

Total project cost.—$32,400,000.

Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(5) HELENA, ARKANSAS

Location.—Phillips County in east-central Arkansas along the Mississippi River.

Purpose.—Flood control.

Problem.—Commercial and residential area of the city of Helena has experienced three major floods in the last 10 years, two of which exceeded the 100 year frequency flood.

Recommended plan.—Three miles of channel enlargement and a pumping station.

Environmental impact statement.—Environmental assessment finding of no significant impact signed by District Engineer on September 24, 1982.

Total project cost.—$13,700,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅛ percent.

(6) WEST MEMPHIS AND VICINITY, ARKANSAS

Location.—St. Francis River Basin along the Mississippi River in east-central Arkansas about 8 miles west of Memphis, Tennessee.

Purpose.—Flood control.

Problem.—Serious flooding has occurred in the area 8 times in the last 30 years.

Recommended plan.—About 10.85 miles of channel enlargement on Fifteen Mile Bajou, 13 miles of enlargement on Ten Mile Bajou with restrictive easements and limited revegetation.

Environmental impact statement.—Environmental Assessment of no significant impact signed by the District Engineer in December, 1982.

Total project cost.—$20,600,000.

Benefit/cost ratio.—2.1 to 1 at a discount rate of 8⅜ percent.

(7) LITTLE COLORADO RIVER AT HOLBROOK, ARIZONA

Location.—The city of Holbrook, 150 miles north of Phoenix, Arizona.

Purpose.—Flood control; recreation.

Problem.—There is recurrent flooding in the urban area of the city of Holbrook. The last major flood occurred in 1972.

Recommended plan.—Raising of the north bank levee along 18,000 feet of the river and adding a south bank levee along 5,000 feet of the south bank of the river. Recreation development includes 3.7 miles of hike trails and 5 picnic areas.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$11,700,000.

Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(8) CACHE CREEK BASIN, CALIFORNIA

Location.—Approximately 90 miles north of the city of San Francisco.

Purpose.—Flood control; fish and wildlife enhancement.

Problem.—Flooding has repeatedly occurred along the rim of Clear Lake in the Upper Cache Creek Basin, most recently in 1970. Sediment control problems in the Lower Cache Creek Basin result in excess deposits in down stream flood control channels impairing their efficiency.

Recommended plan.—Enlargement of Clear Lake outlet channel and addition of a bypass channel for enhanced flood protection and raising levees of the existing settling basin to provide additional sediment storage capacity. A National Wildlife Refuge would be established in the settling basin and future development on Clear Lake would require flood proofing.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1980.

Total project cost.—$30,700,000.

Benefit/cost ratio.—2 to 1 at a discount rate of 7⅞ percent.

Comments.—The Committee is concerned by reports that elements of this project would adversely impact a State park in the project area. Therefore, construction is authorized contingent upon the Secretary coordinating with the State of California to assure that project development does not pose a danger to any component of the State park system.

(9) REDBANK AND FANCHER CREEKS, CALIFORNIA

Location.—The Fresno-Clovis metropolitan area of Fresno County.

Purpose.—Flood control; recreation.

Problem.—Because of the inadequacy of the existing flood control reservoir and lack of detention basins, urban flooding in the Fresno area has caused continued problems.

Recommended plan.—The existing Big Dry Creek Reservoir dam would be raised from 40 to 55 feet; a 49 foot dam on Fancher Creek would be constructed; and 3 detention basins 6, 15, and 17 feet high would be built.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1980.

Total project cost.—$84,100,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(10) SANTA ANA RIVER MAINSTREAM, INCLUDING SANTIAGO CREEK, CALIFORNIA

Location.—Southeast of Los Angeles in Orange County and Western San Bernardino and Riverside Counties.

Purpose.—Flood control.

Problem.—Highly developed and urbanized areas of Southern California through which the Santa Ana River passes are faced with the potential for unprecedented flood damages should, what is called the Standard Project Flood or maximum probable flood, materialize. Such a flow of water could not be handled by existing flood protection structures on the river and damages from such an event have been estimated at $14 billion.

Recommended plan.—Raise existing Prado Dam 30 feet; construct 23 miles of channels and levees on the Santa Ana River; construct 2 miles of channel on the Oak Crest Drain; and construct a flood retardation basin and 1.7 miles of channel improvement on Santiago Creek.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$1,211,000,000.

Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

Comments.—There is strong opposition to the construction of the Mentone Dam Feature of the proposed project of the Chief of Engineers among local officials in the project area. This feature of the proposed project is not authorized for construction. Up stream interests are now awaiting resolution of Corps studies on alternatives to the Mentone Dam and the Corps is urged to complete these studies as quickly as possible in order that authorization of an alternative up stream proposal can be considered by the Congress.

There are also benefits that may accrue to the affected communities through a policy of attempting to maximize water conservation in the operation of the Prado Dam. The Secretary of the Army is encouraged to assure, whenever possible, that at the end of the winter storm and flood season the Corps of Engineers will seek to collect up to 50,000 acre feet of water behind Prado Dam, and release such water thereafter at a rate that insures maximum use by municipal or regional water districts (approximately 300-400 cubic feet per second), while preserving at all times the riparian rights of landowners below Prado Dam and the property rights of existing leaseholders and/or landowners above Prado Dam.

(11) FOUNTAIN CREEK, PUEBLO, COLORADO

Location.—Southeastern Colorado in the city of Pueblo.

Purpose.—Flood control; recreation.

Problem.—Low-lying areas of the urban residential area of Pueblo are faced with a continuing threat of floods that have the potential to cause substantial damage.

Recommended plan.—5,900 feet of riprap channel and 10,200 feet of levee on both banks of Foundation Creek.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$8,400,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(12) METROPOLITAN DENVER AND SOUTH PLATTE RIVER AND TRIBUTARIES, COLORADO

Location.—South Platte River, 80 miles southwest of Denver.
Purpose.—Flood control.
Problem.—Flooding on Westerly Creek has occurred in 14 different years since 1942. The existing Kelly Road Dam no longer provides adequate protection. In part this is due to extensive development in the Denver-Aurora area which has greatly increased runoff. In part this is due to age and un-safe condition of this structure which must be operated in a way to allow some overtopping to prevent failure of the dam.
Recommended plan.—Kelly Road Dam would be modified for safety purposes. A new dam would be constructed on Lowry Air Force Base and a small amount of channelization would be placed up stream of the new Lowry Dam.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.
Total project cost.—$10,563,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(13) OATES CREEK, GEORGIA

Location.—Augusta, Georgia.
Purpose.—Flood control.
Problem.—There is recurring flooding in the urbanized area of the Oates Creek Watershed with average annual damages of $2 million.
Recommended plan.—Modify and enlarge 2½ miles of channel, modify 15 bridges and construct a 6 feet-high 1,000 feet-long levee.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.
Total project cost.—$13,500,000.
Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(14) AGANA RIVER, GUAM

Location.—Agana, the capitol of the Territory of Guam.
Purpose.—Flood control.
Problem.—The Agana River courses through the main business center of the city and is subject to periodic flooding.
Recommended plan.—Construction of 1,700 feet of channel improvement and 4,900 feet of levees.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.
Total project cost.—$9,530,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(15) ALENAIO STREAM, HAWAII

Location.—The South Hilo District on the Island of Hawaii.
Purpose.—Flood control.
Problem.—The downtown area of Hilo has suffered major flooding in 1966, 1979, and 1980.
Recommended plan.—Construction of a 1,640 foot long by 35 foot wide channel and modification of 4 bridges. Undeveloped land in

the flood plain will be regulated by the county government to minimize future damages.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1983.

Total project cost.—$7,860,000.

Benefit/cost ratio.—2.1 to 1 at a discount rate of 7⅞ percent.

(16) BIG WOOD RIVER AND TRIBUTARIES, IDAHO

Location.—Lower Wood River Basin in the vicinity of the cities of Gooding and Shoshone, Idaho.

Purpose.—Flood control.

Problem.—Periodic flooding has continuously caused damage to the cities of Gooding and Shoshone.

Recommended plan.—Construction of a diversion channel and two separate ponding facilities for off-stream diversions of Little Wood River flood flows.

Environmental impact statement.—Final statement submitted to the Council on Environmental Quality in November, 1978.

Total project cost.—$4,420,000.

Benefit/cost ratio.—2.6 to 1 at a discount rate of 7⅞ percent.

(17) NORTH BRANCH CHICAGO RIVER, ILLINOIS

Location.—North Chicago, Illinois metropolitan area.

Purpose.—Flood control.

Problem.—Flood damages to this residential area average $2 million annually, and with continued urbanization would greatly increase in the absence of project development.

Recommended plan.—Three 40 foot deep floodwater reservoirs would be constructed. Two of these below ground level excavations would be placed on the West Fork of the North Branch Chicago River and one on the Middle Fork of the North Branch Chicago River.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1984.

Total project cost.—$14,390,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

(18) ROCK RIVER AT ROCKFORD AND VICINITY, ILLINOIS

Location.—Loves Park, Winnebago County, Illinois.

Purpose.—Flood control.

Problem.—There are frequent flood damages due to over-flows from several large and small unnamed creeks.

Recommended plan.—Project features include 15,000 feet of concrete channel, 2,500 feet of levee 5 feet high, a 75,000 gallon/minute pumping plant, and a 90 acre ponding area.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1980.

Total project cost.—$27,720,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(19) SOUTH QUINCY DRAINAGE AND LEVEE DISTRICT, ILLINOIS

Location.—Along the Mississippi river immediately downstream from the City of Quincy, Illinois.

Purpose.—Flood control.

Problem.—Residual flood damages to commercial/industrial facilities and agricultural activities. The most recent major floor occurred in 1973 and caused damages of $1.2 million within the District.

Recommended plan.—Raise existing levees about 3.5 feet.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on July 8, 1983.

Total project cost.—$11,688,000.

Benefit/cost ratio.—4.1 to 1 at a discount rate of 8⅛ percent.

(20) LITTLE CALUMET RIVER, INDIANA

Location.—South of the southern end of Lake Michigan in northwestern Indiana along a 22 mile long reach of the Little Calumet River.

Purpose.—Flood control.

Problem.—Annual average flood damages for existing conditions along the Little Calumet River are estimated to total about $8.7 million, 90 percent of which occur to residential development. In addition, overbank flooding exacerbates poor drainage conditions which result in public health problems.

Recommended plan.—To be in accord with approval recommendations of the final report of the Chief of Engineers.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1984.

Total project cost.—$83,460,000.

Benefit/cost ratio.—2.57 to 1 at a discount of 7⅞ percent.

Comments.—Section 212 of this Act makes authorization for construction conditional upon completion of a favorable report of the Chief of Engineers. The District Engineer's plan has been authorized because it provides full flood protection to the residents of Gary, Indiana, does not force the relocation of any residences, provides full protection for Interstate 80/94, and provides for more adequate recreational opportunities.

(21) DES MOINES RIVER BASIN, IOWA

Location.—Des Moines River Basin in Central Iowa and Southwestern Minnesota.

Purpose.—Flood control and recreation.

Problem.—Severe flooding has occurred in the City of West Des Moines four times in this century.

Recommended plan.—Construction of 5 miles of levees and floodwalls.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1979.

Total project cost.—$15,340,000.

Benefit/cost ratio.—1.6 to 1 at a discount of 7⅞ percent.

(22) GREEN BAY LEVEE AND DRAINAGE DISTRICT NO. 3, IOWA

Location.—Along the Mississippi River between the cities of Burlington and Fort Madison, Iowa.

Purpose.—Flood control.

Problem.—In spite of an existing project there remains a residual flooding threat from the Mississippi River. The most recent major flooding occurred in 1973.

Recommended plan.—Raising of 17.2 miles of existing levees 3 feet and relocation of the existing road.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in October, 1980.

Total project cost.—$6,770,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(23) PERRY CREEK, IOWA

Location.—Perry Creek Basin in and upstream from the city of Sioux City, Iowa.

Purpose.—Flood control and recreation.

Problem.—The city of Sioux City is not protected from flooding similar to the flood of record which occurred in 1949 and would today cause $4 million in annualized damages.

Recommended plan.—Improved channelization and construction of a second conduit from the entrance of the existing facility to the Missouri River to carry 100 year flood.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$44,200,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(24) HALSTEAD, KANSAS

Location.—Central Kansas, 25 miles north of the city of Wichita.

Purpose.—Flood control.

Problems.—City of Halstead has no protection from the 100 year flood which would inundate the entire city.

Recommended plan.—Construction of 21,000 feet of levee and floodwall along Little Arkansas River and straightening river channel to a 60 foot bottom width.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$7,100,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(25) UPPER LITTLE ARKANSAS RIVER WATERSHED, KANSAS

Location.—The Upper Little Arkansas River Watershed is in central Kansas about 15 miles north of Hutchinson, Kansas.

Purpose.—Flood control.

Problem.—Extensive overbank flooding of highly developed agricultural areas.

Recommended plan.—Eighteen small dams which would contain the 25-year flood with a reserve for 100 years of sediment accumulation and acquisition of 100 acres for mitigation of wildlife habitat losses and fee acquisition of project lands.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March 1983.
Total project cost.—$12,200,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 8⅛ percent.

(26) ATCHAFALAYA BASIN FLOODWAY, LOUISIANA

Location.—South Central Louisiana including the Red River backwater area, the area between the East and West Atchafalaya Basin Protection Levees, and the backwater area east and northeast of Morgan City.
Purpose.—Flood control.
Problem.—There is a need to modify the authorized Atchafalaya flood control project to carry Mississippi River flood waters to the Gulf of Mexico and to preserve and enhance the unique wetland characteristics of the floodway.
Recommended plan.—The full recommended plan includes features previously authorized and environmental protection and nonstructural aspects authorized here.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1982.
Total project cost.—$245,398,000.
Benefit/cost ratio.—Not applicable.

(27) BUSHLEY BAYOU, LOUISIANA

Location.—East-central Louisiana 35 miles northeast of the city of Alexandria.
Purpose.—Flood control.
Problem.—Backwater floods of lengthy duration occur on the average, twice annually.
Recommended plan.—Construction of 40 miles of levee; a pumping plant and gravity drainage structures.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.
Total project cost.—$44,700,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(28) LOUISIANA STATE PENITENTIARY LEVEE, LOUISIANA

Location.—Bank of the Mississippi River in West Feliciana Parish 50 miles northwest of Baton Rouge.
Purpose.—Flood control.
Problem.—The penitentiary is not protected from the Mississippi River project design flood.
Recommended plan.—Mainline levee will be raised 8.5 feet and existing drainage structures would be replaced.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1972.
Total project cost.—$22,646,000.
Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(29) QUINCY COASTAL STREAMS, MASSACHUSETTS

Location.—The city of Quincy, Mass.
Purpose.—Flood control.

Problem.—Town of Quincy has inadequate protection against flood of record which occurred in 1955 and would today cause $14 million in damages.

Recommended plan.—Construction includes a new spillway and outlet on the existing Old Quincy Reservoir and a below ground relief tunnel in the town of Quincy 12 feet wide and 4,000 feet long.

Environmental impact statement.—An environmental assessment finding of no significant impact was filed on September 29, 1980.

Total project cost.—$26,500,000

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(30) ROUGHANS POINT, REVERE, MASSACHUSETTS

Location.—Revere, which is immediately north of Boston and Winthrop.

Purpose.—Flood control.

Problem.—Frequent flooding due to storm tides and wave overtopping. A recurrence of the flood of record, which occurred in 1978, would result in about $11 million in damages.

Recommended plan.—Construction of a 4,080-foot-long wave dissipating armor stone revetment along the Roughans Point shore.

Environmental impact statement.—Finding of No Significant Impact was signed in November, 1983.

Total project cost.—$8,200,000.

Benefit/cost ratio.—1.7 to 1. a discount rate of 8⅜ percent.

(31) ST. PAUL, MINNESOTA

Location.—On the Mississippi River opposite downtown St. Paul, Minnesota.

Purpose.—Flood control; recreation.

Problem.—Existing project completed in 1964 developed on basis of 1952 record flood. Floods in 1965 and 1969 exceeded the 1952 flood and further such events pose a threat to the existing project.

Recommended plan.—Existing levees and floodwalls would be raised 4 feet.

Environmental impact statement.—A finding of no significant impact was filed in the 1981 feasibility report.

Total project cost.—$8,454,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(32) REDWOOD RIVER AT MARSHALL, MINNESOTA

Location.—Southwestern Minnesota 90 miles west of the city of Mankato.

Purpose.—Flood control; recreation.

Problem.—Existing project channels lack the capacity to convey the design flow to the existing diversion channel without damaging overbank and backwater effects.

Recommended plan.—Construction includes channel widening, levees, construction of an overflow diversion structure with control and outlet works and recreation facilities.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$4,280,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(33) ROOT RIVER BASIN, MINNESOTA

Location.—Southeast of Rochester, Minnesota.
Purpose.—Flood control.
Problem.—Annual flooding in the basin adversely affects agricultural lands and the community of Houston.
Recommended plan.—Construction of 3 miles of levee at the town of Houston and an interior drainage pumping station.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.
Total project cost.—$8,195,000.
Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

(34) SOUTH FORK ZUMBRO RIVER, MINNESOTA

Location.—Rochester, Minnesota.
Purpose.—Flood control; recreation.
Problem.—Over one-third of the city of Rochester lies in the Zumbro River flood plain. The 100 year flood would cause over $100 million in damages.
Recommended plan.—Construction includes deepening and widening the Zumbro River channel, Bear Creek, and Cascade Creek and the construction of 2 short levees.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1979.
Total project cost.—$60,470,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(35) HORN LAKE AND TRIBUTARIES TENNESSEE AND MISSISSIPPI

Location.—De Soto County, Mississippi and Shelby County, Tennessee.
Purpose.—Flood control; recreation.
Problem.—Frequent flooding in both urban and agriculture areas of the basin.
Recommended plan.—Construction of channel improvements to 6 miles of Horn Lake Creek and Cow Pen Creek and channel improvement on 5 miles of Southaven Creek and Rock Creek.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1982.
Total project cost.—$3,400,000.
Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

(36) SOWASHEE CREEK, MISSISSIPPI

Location.—City of Meridian, Mississippi.
Purpose.—Flood control.
Problem.—The existing project, completed in 1965, has proved inadequate to deal with severe periodic flooding.
Recommended plan.—Construction includes modifications to 6 bridges and replacement of a 7th bridge together with channel enlargement and a 3 phase snagging and clearing program.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in October, 1984.

Total project cost.—$17,500,000.
Benefit/cost ratio.—2.0 to 1 at a discount rate of 7⅞ percent.

(37) BRUSH CREEK AND TRIBUTARIES, KANSAS AND MISSOURI

Location.—Kansas City metropolitan area.
Purpose.—Flood control.
Problem.—The flood of record caused $66 million in damages to this urbanized area in 1977.
Recommended plan.—The deepening of Brush Creek channel by 5 feet over a length of 7,500 feet and replacement of 2 bridges.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.
Total project cost.—$15,770,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(38) MALINE CREEK, MISSOURI

Location.—St. Louis County adjacent to the northern boundary of the city of St. Louis.
Purpose.—Flood control; recreation.
Problem.—Flood damages along Maline Creek were $16.5 million in 1979.
Recommended plan.—Project features include dry detention reservoirs, 3 miles of channel widening, 5 bridge replacements, 5 miles of low level floodwalls, 10 miles of recreational trails and 18 aquatic habitat structures.
Environmental impact statement.—Final statement published in Federal Register on July 23, 1982.
Total project cost.—$61,900,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(39) ST. JOHNS BAYOU AND NEW MADRID FLOODWAY, MISSOURI

Location.—New Madrid, Scott, and Mississippi counties, Missouri.
Purpose.—Flood control; land use.
Problem.—Frequent periodic flooding in the area of Sikeston, Missouri and the New Madrid Floodway.
Recommended plan.—Construction of rural and urban channel improvements on 136 miles of rural channel and 8 miles of urban channel, 2 pumping stations and environmental mitigation measures including acquisition of 2,500 acres of land at Ten Mile Pond.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1982.
Total project cost.—$108,900,000.
Benefit/cost ratio.—1.6 to 1 at a discount rate of 7⅞ percent.

(40) CAPE GIRARDEAU, MISSOURI

Location.—City and County of Cape Girardeau.
Purpose.—Flood control; recreation.
Problem.—Flash flooding and flooding resulting from high water on the Mississippi River and on the Little River Diversion Channel.
Recommended plan.—Structural components include 1.47 miles of concrete channel, 0.79 miles of riprap channels, 0.78 miles of

earth channel, 8 bridge replacements, relocation or removal of 18 houses and 2 commercial buildings, and one dry detention reservoir. Recreational improvements include 6.5 miles of trails and a 98-acre park at the dry detention reservoir site.

Environmental impact statement.—Environmental Assessment of no significant impact signed by the District Engineer in December, 1983.

Total project cost.—$24,600,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 8⅜ percent.

(41) ROBINSON'S BRANCH, RAHWAY RIVER, NEW JERSEY

Location.—City of Rahway and the townships of Clark and Scotch Plains, Union County, New Jersey, about 10 miles southwest of Newark, New Jersey.

Purpose.—Flood control.

Problem.—Area is subject to recurrent fluvial flooding. The last major flood in 1973 caused $1.1 million in damages.

Recommended plan.—Construction of channel improvement, levees, and floodwalls in Clark and Scotch Plains; a concrete flume, channel improvement, and levees and floodwalls in the City of Rahway.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.

Total project cost.—$25,907,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(42) RAHWAY RIVER AND VAN WINKLES BROOK, NEW JERSEY

Location.—Townships of Springfield and Union, Union County, New Jersey, about 8 miles southwest of Newark, New Jersey.

Purpose.—Flood control.

Problem.—Recurrent flooding has occurred in Springfield and Union townships. The last major flood in 1973 caused $2.5 million in damages.

Recommended plan.—Principal features include 6,300 feet of levee; 19,000 feet of channalization; and alterations to 7 bridges.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1978.

Total project cost.—$17,500,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

(43) GREEN BROOK SUBBASIN, RARITAN RIVER BASIN, NEW JERSEY

Location.—Counties of Somerset, Middlesex, and Union about 15 miles southwest of Newark, New Jersey.

Purpose.—Flood control.

Problem.—Recurrent flooding has occurred in the basin, with the most recent major flood in 1973 causing over $84 million in damages.

Recommended plan.—Major project features include 89,000 feet of levees; 16,000 feet of stream realignment; 7 pumping stations; and 13 bridge replacements.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$101,832,000.
Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(44) RAMAPO AND MAHWAH RIVERS, NEW JERSEY AND NEW YORK

Location.—The Cities of Mahwah, New Jersey, and Suffern, New York, about 25 miles northwest of New York City.
Purpose.—Flood control.
Problem.—Recurrent flooding along the Ramapo and Mahwah Rivers in urban areas, primarily at the Squires Gate development in Suffern.
Recommended plan.—5000 feet of channel modifications on both the Ramapo and Mahwah Rivers, including a low flow pilot channel to reduce adverse impacts on aquatic habitat.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1984.
Total project cost.—$6,200,000.
Benefit/cost ratio.—1.7 to 1 at a discount rate of 8⅜ percent.

(45) MIDDLE RIO GRANDE FLOOD PROTECTION, NEW MEXICO

Location.—Between Bernalillo and Belen in the center of the State of New Mexico.
Purpose.—Flood control.
Problem.—Residents of low-lying areas continue to suffer average annual flood damage of $6 million regardless of existing flood control projects.
Recommended plan.—Rehabilitation of 62.3 miles of levees.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1980.
Total project cost.—$43,900,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.
Comments.—The Secretary is authorized to also increase flood protection through dredging of the bed of the Rio Grande in the vicinity of Albuquerque, New Mexico to an elevation lower than existed on the date of enactment of this Act.

(46) PUERCO RIVER AND TRIBUTARIES, NEW MEXICO

Location.—City of Gallup in McKinley County, in northwestern New Mexico about 135 miles west of Albuquerque.
Purpose.—Flood control; recreation.
Problem.—The city of Gallup incures periodic floods. The most recent major flood in 1972 caused $1.3 million in damages.
Recommended plan.—Project features include levee rehabilitation, rock removal, and new inlet structure, and a bicycle trail.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March 1981.
Total project cost.—$4,160,000.
Benefit/cost ratio.—1.5 to 1 at a discount rate of 7⅞ percent.

(47) CAZENOVIA CREEK WATERSHED, NEW YORK

Location.—West Seneca, in Erie County, New York.
Purpose.—Flood control.

Problem.—There is recurrent flooding along the urbanized area of Cazenovia Creek most commonly during late winter and early spring when high water combines with ice jams along Cazenovia Creek.

Recommended plan.—Construction of a low concrete dam and ice retaining boom.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1977.

Total project cost.—$3,025,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(48) MAMARONECK AND SHELDRAKE RIVERS BASIN AND BYRAM RIVER BASIN, NEW YORK AND CONNECTICUT

Location.—Village of Mamaroneck, Westchester County, New York; and Port Chester, New York; and Greenwich, Connecticut, all northeast of New York City.

Purpose.—Flood control.

Problem.—The last major flood in the basin in 1975 caused damages of $37.5 million in the Mamaroneck and Sheldrake Basin, and $0.8 million in damages in the Byram River Basin.

Recommended plan.—Project features include channel modification, levees floodwalls, and 4 bridge replacements.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in April, 1981.

Total project cost.—$63,070,000.

Benefit/cost ratio.—1.0 to 1 at a discount rate of 7⅞ percent.

(49) TONAWANDA CREEK WATESHED, NEW YORK

Location.—On Tonawanda Creek, just upstream of the city of Batavia, New York.

Purpose.—Flood control.

Problem.—Recurrent flooding of Tonawanda Creek causing both urban and agricultural flood damages averaging over $2½ milion annually.

Recommended plan.—Construction of two low earth dams with outlet works and emergency spillway, and four stream retaining dikes.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on February 24, 1984.

Total project cost. $32,000,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 8⅛ percent.

(50) SUGAR CREEK BASIN, NORTH CAROLINA AND SOUTH CAROLINA

Location.—Mecklenburg County in North Carolina and Lancaster and York Counties in South Carolina.

Purpose.—Flood control.

Problem.—Significant flood losses occur in this highly developed basin during periods of high flows.

Recommended plan.—Implementation of flood damage reduction measures in nine separate areas, including removal of 168 residential structures and construction of 7.3 miles of channel modifications.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1984.

Total project cost.—$29,100,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 8⅜ percent.

(51) PARK RIVER, AT GRAFTON, NORTH DAKOTA

Location.—On the Park River at Grafton in northwestern North Dakota.

Purpose.—Flood control.

Problem.—Recurrent flooding along the South Branch and main stem Park River causes significant flood problems at Grafton.

Recommended plan.—Construction of a 3.75-mile long flood bypass channel and a levee.

Environmental impact statement.—Final supplement to the final EIS was filed with the Environmental Protection Agency on December 9, 1983.

Total project cost.—$18,790,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 8⅛ percent.

(52) SHEYENNE RIVER, NORTH DAKOTA

Location.—Southeastern North Dakota along the Sheyenne River.

Purpose.—Flood control.

Problem.—Recurrent flooding along the Sheyenne River causes significant flood problems for local communities.

Recommended plan.—The plan of improvement consists of levees, diversion channels, and raising of the existing Baldhill Dam. The authorization also calls for a dam and reservoir on the Maple River.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on April 13, 1984.

Total project costs.—$55,400,000.

Benefit/cost ratio.—7.7 to 1 at a discount rate of 8⅜ percent excluding the Maple River Dam and Reservoir.

Comments.—The State and Corps have agreed to separate the five-foot raise of the Baldhill Dam component from the selected plan so the State can consider alternatives. Corps planning funds shall not be used on this component until the State sponsors that portion of the project

(53) HOCKING RIVER AT LOGAN AND NELSONVILLE, OHIO

Location.—City of Logan in Hocking County, Ohio, city of Nelsonville in Athens County, Ohio, both about 51 miles above the mouth of the Hocking River.

Purpose.—Flood control; recreation.

Problem.—There is frequent flooding at both of these urban areas. Estimated annual damages amounts to $3,398,000 at Nelsonville and $1,613,000 at Logan.

Recommended plan.—Channel modification and levees at Logan and channel widening and floodway construction at Nelsonville.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—Logan: $7,760,000; Nelsonville: $8,020,000.
Benefit/cost ratio.—Logan: 1.6 to 1 at a discount rate of 7⅞ percent. Nelsonville: 3.6 to 1 at a discount rate of 7⅞ percent.

(54) MIAMI RIVER, FAIRFIELD, OHIO

Location.—The city of Fairfield, Ohio, 15 miles northwest of Cincinnati.
Purpose.—Flood control; recreation.
Problem.—Recurrent flooding, most recently in 1979 has caused damages in excess of $1 million at Fairfield.
Recommended plan.—Construction of 3 dry bed reservoirs and channel enlargement.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1982.
Total project cost.—$14,360,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(55) MIAMI RIVER, LITTLE MIAMI RIVER, OHIO

Location.—West Carrollton, Moraine, and Miami (Townships, 7 miles south of Dayton, Ohio.
Purpose.—Flood control; recreation.
Problem.—There is periodic flooding of the study area and a need for urban recreation opportunities.
Recommended plan.—Project features include 1.4 miles of channel enlargement and replacement of a railroad bridge.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.
Total project cost.—$8,910,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(56) MUSKINGUM RIVER BASIN, OHIO

Location.—City of Mansfield, Ohio in Richland County.
Purpose.—Flood control; recreation.
Problem.—There is a frequent flood damage to the city of Mansfield.
Recommended plan.—Channel modification.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1979.
Total project cost.—$4,256,000.
Benefit/cost ratio.—2.6 to 1 at a discount rate of 7⅞ percent.

(57) SCIOTO RIVER AT NORTH CHILLICOTHE, OHIO

Location.—The city of Chillicothe, 49 miles south of Columbus, Ohio.
Purpose.—Flood control; recreation.
Problem.—There is periodic flooding of Chillicothe and the need for outdoor recreation facilities.
Recommended plan.—Principle project feature is the construction of a 13,400 foot earth levee.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.
Total project cost.—$10,740,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

(58) FRYS CREEK, OKLAHOMA

Location.—Within the city of Bixby, Oklahoma.
Purpose.—Flood control.
Problem.—Seven floods causing severe property damage have occurred in the City of Bixby in the last 13 years, principally to residential areas.
Recommended plan.—Channelization and construction of 3,500 feet of levee 3-feet high.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March 1983.
Total project cost.—$13,000,000.
Benefit/cost ratio.—1.4 to 1 at a discount of 7⅞ percent.

(59) MINGO CREEK OKLAHOMA

Location.—Within the city of Tulsa, Oklahoma.
Purpose.—Flood control.
Problem.—Since 1959, nine major floods have been recorded on Mingo Creek. In 1976 the largest flood occurred causing $48 million damages.
Recommended plan.—7.5 miles of channelization, construction of detention ponds, and preservation of 35 acres of bottom land timber.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June 1981.
Total project cost.—$133,000,000.
Benefit/cost ratio.—2.7 to 1 at a discount rate of 7⅞ percent.

(60) PARKER LAKE, MUDDY BOGGY CREEK, OKLAHOMA

Location.—Coal, Pontotoc, and Atoka Counties, Oklahoma.
Purpose.—Flood control; water supply; recreation.
Problem.—Primary project benefit (83 percent) is for water supply for central Oklahoma.
Recommended plan.—Construction of a multiple-purpose reservoir with a storage capacity of 237,000 acre feet of water.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.
Total project cost.—$43,000,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(61) HARRISBURG, PENNSYLVANIA

Location.—City of Harrisburg, Pennsylvania.
Purpose.—Flood control.
Problem.—Recurring floods in the city have caused repeated damage with the 1972 flood causing $85 million in damages.
Recommended plan.—Construction of a dry dam, 3 miles of channelization, and a 3,800-foot floodwall.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.
Total project cost.—$132,900,000.
Benefit/cost ratio.—1.6 to at a discount rate of 7⅞ percent.

(62) LOCK HAVEN, PENNSYLVANIA

Location.—City of Lock Haven in Clinton County, Pennsylvania.
Purpose.—Flood control.
Problem.—The city of Lock Haven has been subjected to floods 19 times in 130 years.
Recommended plan.—Construction of 24,500 feet of levee, 6,500 feet of floodwall, and 4 pumping stations.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.
Total project cost.—$79,225,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(63) SAW MILL RUN, PITTSBURGH, PENNSYLVANIA

Location.—On Saw Mill Run in Pittsburgh, Pennsylvania.
Purpose.—Flood control.
Problem.—Existing channel is not able to contain flood flows.
Recommended plan.—Channel deepening and minor realignment.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1978.
Total project cost.—$7,853,000.
Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(64) WYOMING VALLEY, PENNSYLVANIA

Location.—Luzerne County, Pennsylvania.
Purpose.—Flood control.
Problem.—Flooding in 1972 caused $720 million in damages to property in the valley.
Recommended plan.—Raising of existing levee by 5 to 7 feet.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in January, 1983.
Total project cost.—$234,700,000.
Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(65) BIG RIVER RESERVOIR, RHODE ISLAND

Location.—Central Rhode Island including the city of Providence.
Purpose.—Flood control; water supply; recreation.
Problem.—Primary need is for new water supply; potential for flood damage also exists on lower Pawtuxet River.
Recommended plan.—Primary project feature is a 70 foot high multipurpose reservoir with 73,600 acre-feet of water supply storage.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1982.
Total project cost.—$234,700,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.
Comments.—Title VII authorizes construction of the Big River Reservoir project in Rhode Island. The project will entail a multiple purpose reservoir providing flood control, water supply and recreational benefits in the Pawtuxet River Basin. This project has been approved by the Chief of Engineers.

The Big River Reservoir project will be needed in order to fulfill Rhode Island's future water supply needs and to alleviate flooding

problems in several communities. In order to assure the continued accurate planning of the project, the Corps of Engineers should review its population and water consumption projections according to the most recent available data used for state planning purposes.

The Corps of Engineers should also work with state and Federal agencies during the Advanced Engineering and Design phase to insure that all environmental consequences of the project are minimized to the greatest possible extent, including the study of alternative flow releases to alleviate downstream water quality problems.

(66) NONCONNAH CREEK, TENNESSEE

Location.—Nonconnah Creek Basin in the vicinity of, and including part of the city of Memphis, Tennessee.

Purpose.—Flood control; recreation.

Problem.—Periodic flooding.

Recommended plan.—Project features include approximately 18 miles of channel enlargement, and 30 miles of trails and a nature area.

Environmental impact statement.—Final supplement filed with the Environmental Protection Agency in July, 1982.

Total project cost.—$25,900,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

Comments.—The Soil Conservation Service portion of this total project is authorized for construction in section 319 of this Act.

(67) BUFFALO BAYOU AND TRIBUTARIES, TEXAS

Location.—Suburban Houston, Texas.

Purpose.—Food control.

Problem.—Flooding in urban areas along Cole and Vogel Creeks, tributaries of Buffalo Bayou, and White Oak Bayou upstream from the mouth of Cole Creek.

Recommended plan.—Construction includes channel enlargement, rectification and partial paving of 9.2 miles of White Oak Bayou, 4.9 miles of Cole Creek, and 4.5 miles of Vogel Creek to provide Standard Project Flood Protection. Nonstructural flood plain management and beautification measures are included.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in August, 1979.

Total project cost.—$90,670,000.

Benefit/cost ratio.—1.6 to 1 at a discount rate of 7⅞ percent.

(68) BOGGY CREEK, COLORADO RIVER AND TRIBUTARIES, TEXAS

Location.—Austin, Texas.

Purpose.—Flood control; recreation.

Problem.—Serious flooding along Boggy Creek and its two primary tributaries, Tennehille Branch and Fort Branch.

Recommended plan.—Structural measures, including construction of a 2.2 mile concrete channel and 0.7 miles of grass-lined channel. Land will be acquired to mitigate habitat losses and provide environmental quality enhancement.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1980.

Total project cost.—$21,300,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(69) LAKE WICHITA, HOLLIDAY CREEK, TEXAS

Location.—Wichita Falls, Texas.

Purpose.—Flood control.

Problem.—Serious flooding in urban areas below the dam, as well as periodic flooding in commercial and residential areas around the lake.

Recommended plan.—Project includes structural measures, including raising and repairing the existing Lake Wichita Dam embankment, constructing a new uncontrolled spillway and excavating an improved channel downstream of the dam to the mouth of Holliday Creek. The plan would provide 100-year flood protection and eliminate the possibility of a major dam failure.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$27,300,000.

Benefit/cost ratio.—1.9 to 1 at a discount rate of 7⅞ percent.

(70) LOWER RIO GRANDE BASIN, TEXAS

Location.—Hidalgo, Willacy, and Cameron Counties, Texas.

Purpose.—Flood control.

Problem.—Floodwater damage, inadequate drainage, saline soils, and erosion.

Recommended plan.—Project includes a combination of structural and nonstructural measures, including the construction of two major channels, and channel improvements and bank protection along the Arroyo Colorado.

Environmental impact statement—Final statement was filed with the Environment Protection Agency in July, 1983.

Total project cost.—$195,304,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

Comments.—Authorization for construction is conditioned upon completion of favorable report of the Chief of Engineers (section 212 of this Act).

(71) SIMS BAYOU, TEXAS

Location.—Within the corporate city limits of Houston, South Houston, and Missouri City, Texas.

Purpose.—Flood control and recreation.

Problem.—Flat topography, increasing urbanization, and inadequate stream capacity in Sims Bayou combine to make flooding an increasing problem.

Recommended plan.—Channel enlargement, environmental enhancement measures, and recreational development.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on October 14, 1983.

Total project cost.—$123,979,000.

Benefit/cost ratio.—9.87 to 1 flood control and 2.12 to 1 for recreation, both at a discount rate of 7⅞ percent.

(72) JAMES RIVER BASIN, VIRGINIA

Location.—The James River Basin in the city of Richmond, Virginia.

Purpose.—Flood control.

Problem.—Flooding in Richmord in 1969 and 1972 caused a total of $82 million in damages.

Recommended plan.—Construction of floodwalls and levees on both sides of the James River in downtown Richmond.

Environmental impact statement.—Final supplement to final statement filed with the Environmental Protection Agency in July, 1981.

Total project cost.—$101,200,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(73) CHEHALIS RIVER, WASHINGTON

Location.—Cities of South Aberdeen and Cosmopolis, southwestern Washington.

Purpose.—Flood control.

Problem.—Recurring flooding of these cities by the Chehalis River. The 1933 record flood caused damages in current prices of $13 million.

Recommended plan.—Construction of 4.7 miles of levees and 5 pumping stations.

Environmental impact statement.—Final statement filed with Council on Environmental Quality in November 1978.

Total project cost.—$21,940,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(74) YAKIMA UNION GAP, WASHINGTON

Location.—Yakima County, Washington.

Purpose.—Flood control.

Problem—Periodic flooding on Yakima River flood plain, most recently in 1975 and 1977. Average annual damages are $1.2 million.

Recommended plan.—Raising of existing levees.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$8,789,000

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅛ percent

(75) CENTRALIA, CHEHALIS RIVER AND TRIBUTARIES, WASHINGTON

Location.—Southwestern Washington State in the vicinity of the city of Centralia, Washington.

Purpose.—Flood control.

Problem.—Recurrent flood damages in the Skookumchuck River Valley averaging almost $3 million annually.

Recommended plan.—Modification of existing, private, water supply dam on the Skookumchuck River to provide flood control storage.

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Environmental impact.—Final statement was filed with the Environmental Protection Agency on January 18, 1984.

Total project cost.—$19,500,000

Benefit/cost ratio.—1.5 to 1 at a discount rate of 8⅛ percent.

(76) MOUNT SAINT HELENS SEDIMENT CONTROL, WASHINGTON

Location.—Cowlitz County in southwest Washington.

Purpose.—Flood control.

Problem.—Sediment from the Mount St. Helens eruption in May, 1980, in the river channels diminishes the flood protection to adjacent areas and results in costly dredging to maintain an open navigation channel.

Recommended plan.—Construction of a single retention structure to prevent most of the sediment from washing downstream is the preferred alternative, but other alternatives are possible in light of the considerable uncertainty as to the amount of sediment which will flow into area rivers over time.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in January, 1985.

Total project cost.—$214,100,000.

Benefit/cost ratio.—1.5 to 1 at a discount rate of 8⅜ percent.

Comments.—The Secretary is directed to construct the single retention structure.

(77) WISCONSIN RIVER AT PORTAGE, WISCONSIN

Location.—The City of Portage, Wisconsin, and adjacent townships, located in south central Wisconsin, about 35 miles north of Madison.

Purpose.—Flood control; recreation.

Problem.—Serious flooding has occurred 7 times in the last thirty five years and the potential exists for a disastrous flood, because of the topography and previous attempts to modify the flood flow characteristics of the Wisconsin River.

Recommended plan.—Structural features include 3 miles of levee, 550 feet of floodwall, locks, gates, ramps, closures, and interior drainage facilities. Recreation features include trails, an expansion of an existing park, and relocation and reorganization of park facilities.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1985.

Total project cost.—$6,300,000.

Benefit/cost ratio.—1.34 to 1 at a discount rate of 8⅜ percent.

HYDROELECTRIC POWER

The following hydroelectric power projects are authorized by section 702(b):

(1) SCAMMON BAY, ALASKA

Location.—Village of Scammon Bay, an isolated Eskimo Village in the Yukon-Kuskokwim Delta region of southwestern Alaska.

Purpose.—Hydropower.

Problem.—The only present sources of electricity for the village are diesel generators which have a high fuel cost.

Recommended plan.—Construction of a small diversion structure, penstock, and a powerhouse with a single turbine and generator.

Environmental impact statement.—A finding of No Significant Impact was signed by the District Engineer in March, 1982.

Total project cost.—$1,600,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ present.

(2) SOUTH CENTRAL RAILBELT AREA, ALASKA

Location.—Community of Valdez, at the head of Port Valdez about 115 miles east of Anchorage, Alaska, and the interior communities of the Copper River Basin which lie to the north of Valdez.

Purpose.—Hydropower.

Problem.—Area currently relies on diesel generators for electric power.

Recommended plan.—Construction of a power tunnel and powerhouse at Allison Lake and a transmission line. Plant would have a 8,000 kilowatt generation capaicty.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1982.

Total project cost.—$44,000,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ persent.

(3) MURRAY LOCK AND DAM, ARKANSAS

Location.—On the Arkansas River approximately five miles nothwest of Little Rock, Arkansas.

Purpose.—Hydropower.

Problem.—Need for additional electrical energy in the region.

Recommended plan.—Construction of a powerhouse adjacent to the existing Murray Lock and Dam along with the necessary approach and tailrace facilities. Generating capacity will total 37,500 kilowatts.

Environmental impact statement.—Finding of no significant impact was signed by the District Engineer in October, 1980.

Total project cost.—$98,600,000.

Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

(4) ARKANSAS RIVER AND TRIBUTARIES, ARKANSAS AND OKLAHOMA

Location.—Lock and Dam No. 13 is located on the Arkansas River approximately 3 miles east of Fort Smith, Arkansas. Lock and Dam No. 9 is located on the Arkansas River about 3 miles west of Marrilton, Arkansas. Toad Suck Ferry Lock and Dam is located on the Arkansas River approximately 5 miles west of Conway, Arkansas.

Purpose.—Hydropower.

Problem.—Need for additonal electrical energy in the region.

Recommended plan.—Construction of a 37,500 kilowatt powerhouse and associated channel, tailrace and appurtenances at Lock and Dam No. 13. Construction of a 37,500 kilowatt powerhouse and associated channel, tailrace, and appurtenances at Lock and Dam 9

and construction of a 15,000 kilowatt powerhouse and associated channel, tailrace, and appurtenances at Toad Suck Ferry Lock and Dam.

Environmental impact statement.—Finding of no significant impact was signed by the District Engineer in January, 1982.

Total project cost.—$285,700,000.

Benefit/cost ratio.—1.9 to 1 at Lock and Dam No. 13, 1.8 to 1 at Lock and Dam No. 9, and 1.2 to 1 at Toad Suck Ferry Lock and Dam; all at a discount rate of 7⅞ percent.

(5) METROPOLITAN ATLANTA AREA WATER RESOURCES MANAGEMENT STUDY, GEORGIA

Location.—Clayton, Cobb, Douglas, Rockdale, DeKalb, Fulton, Gwinnett, and parts of contiguous counties in the Piedmont Province of north-central Georgia.

Purpose.—Water supply and hydropower.

Problem.—Rapid growth of the Metropolitan Atlanta Area has resulted in the need for additonal flood control measures and additional electrical generating capacity.

Recommended plan.—Construction of a reregulation dam and reservoir on the Chattahooche River 6.3 miles downstream of Buford Dam.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1981.

Total project cost.—$26,445,000.

Benefit/cost ratio.—1.8 to 1 at a discount rate of 7⅞ percent.

(6) W. D. MAYO LOCK AND DAM 14, OKLAHOMA

Location.—Nine miles southwest of Fort Smith, Arkansas on the McLellan-Kerr Arkansas Navigation System in Oklahoma.

Purpose.—Hydropower.

Problem.—Need for additional electrical generation capacity in the region.

Recommended plan.—Construction of a submersible powerhouse containing six turbines with a combined capacity of 44,000 kilowatts and associated extrance and exit channels.

Environmental impact statement.—Finding of no significant impact in the Chief of Engineers report dated December 23, 1981.

Total project cost.—$119,300,000.

Benefit/cost ratio.—2.3 to 1 at a discount rate of 7⅞ percent.

(7) FORT GIBSON LAKE, POWERHOUSE EXTENSION, OKLAHOMA

Location.—East-central Oklahoma at the existing Fort Gibson Lake, which is about 8 miles northeast of Muskogee, Oklahoma.

Purpose.—Hydropower.

Problem.—Proposed project would provide additonal hydroelectric generating capacity in the region.

Recommended plan.—Installation of two additional 11,250 kilowatt generating units; raising the top of the conservation pool by 2 feet, and preservation of cultural resources around the lake.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in October, 1983.

Total project cost.—$24,100,000.
Benefit/cost ratio.—1.08 to 1 at a discount rate of 8⅜ percent.

(8) BLUE RIVER LAKE, OREGON

Location.—On the Blue River about 42 miles east of Eugene, Oregon.
Purpose.—Hydropower.
Problem.—Need for additional electrical generating capacity in the region.
Recommended plan.—Construction of a powerhouse with two different types of turbines and generators and associated entrance tunnel and tailrace.
Environmental impact statement.—Finding of no significant impact was signed by the District Engineer in December, 1981.
Total project cost.—$30,101,000.
Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

(9) MC NARY LOCK AND DAM SECOND POWERHOUSE, OREGON AND WASHINGTON

Location.—At existing McNary Lock and Dam on the Columbia River two miles east of Umatilla, Oregon.
Purpose.—Hydropower.
Problem.—Need for additional electrical generating capacity in the region.
Recommended plan.—Construction of a second powerhouse containing six generators with a combined generating capacity of 742,000 kilowatts and associated appurtenances, with provision for four additional units if necessary. Also construction of fish passages, hatchery, beautification of existing levees and improved public facilities.
Environmental impact statement.—Final statement was filed with the Council on Environmental Quality in February, 1977.
Total project cost.—$649,000,000.
Benefit/cost ratio.—1.4 to 1 at a discount rate of 7⅞ percent.

(10) GREGORY COUNTY HYDROELECTRIC PUMPED STORAGE FACILITY, STAGES I AND II, SOUTH DAKOTA

Location.—Adjacent to the west side of Lake Francis Case about 35 miles upstream of the Fort Randall Dam.
Purpose.—Hydropower, water supply, and irrigation.
Problem.—Need for additional electrical generating capacity in the region.
Recommended plan.—Construction of a 2,360 megawatt pumped storage facility to be done in two 1,180 megawatt stages four years apart. Project features include a forebay about 700 feet above Lake Francis Case, a powerhouse, intake structure, verticle shaft, and tunnel for water passage between the forebay and powerhouse, and a discharge channel into Lake Francis Case. Fish and wildlife measures are also included.
Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1982.
Total project cost.—$1,380,000,000.

Benefit/cost ratio.—1.7 to 1 at a discount rate of 7⅞ percent.

Comments.—Title 702(b)(10) of this Act authorizes additional associated multipurpose water supply and irrigation features as described in the final feasibility report of the District Engineer and authorizes that up to $100 million of the Federal cost of the project may be used to construct these features provided that they are undertaken concurrently by the Bureau of Reclamation in accordance with Federal reclamation laws as a unit of the Pick-Sloan Missouri River Basin Plan.

The Gregory County Hydroelectric Pumped Storage Facility, Stages I and II, also will constitute a part of the Pick-Sloan Program. As such, after its own payout, power revenues will contribute to the return of costs of irrigation units of the program.

The magnitude of the Gregory project is such that preference purchasers will not be able to absorb its entire output.

BEACH EROSION

The following beach erosion control projects are authorized by section 702(c)(1):

(A) CHARLOTTE COUNTY, FLORIDA

Location.—Lower Gulf Coast of Florida about 75 miles south of Tampa, Florida.

Purpose.—Beach erosion control.

Problem.—Beach erosion along the Port Charlotte Beach State recreation area.

Recommended plan.—1.1 miles of beach would be restored and a 1,250-foot terminal groin would be constructed at the south end of the beachfill.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1981.

Total project cost.—$2,255,000.

Benefit/cost ratio.—4.0 to 1 at a discount rate of 7⅞ percent.

(B) INDIAN RIVER COUNTY, FLORIDA

Location.—East Central Coast of Florida midway between Jacksonville and Miami.

Purpose.—Beach erosion control.

Problem.—Beach erosion on shore fronting city of Vero Beach and along Sebastian Inlet State Park.

Recommended plan.—Restoration of 1.7 miles of beach at Vero Beach and 1.7 miles of beach at Sebastian Inlet State Park.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$4,934,000.

Benefit/cost ratio.—2.0 to 1 at a discount rate of 7⅞ percent.

(C) PANAMA CITY BEACHES, FLORIDA

Location.—Bay County, Florida between the Panama City Harbor Entrance Channel and Philips Inlet.

Purpose.—Beach erosion control and hurricane protection.

Problem.—Beach erosion caused by natural forces, particularly severe storms and beach needs for recreational uses.

Recommended plan.—Construction of a sandfill storm dune stabilized by vegetation, and a protective beach along the Panama City Beaches to provide protection from beach erosion and hurricane storm surge.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1979.

Total project cost.—$41,731,000.

Benefit/cost ratio.—2.8 to 1 at a discount rate of 7⅞ percent.

(D) ST. JOHNS COUNTY, FLORIDA

Location.—Upper east coast of Florida.

Purpose.—Beach erosion control.

Problem.—Beach erosion at St. Augustine Beach.

Recommended plan.—Restoration of 2.5 miles of beach fronting St. Augustine, Florida and subsequent periodic nourishment of the restored beach.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1981.

Total project cost.—$9,679,000.

Benefit/cost ratio.—1.1 to 1.

(E) DADE COUNTY, NORTH OF HAULOVER BEACH PARK, FLORIDA

Location.—Dade County on the southeast tip of the Florida Peninsula. Miami is the principal city in the county.

Purpose.—Shoreline protection, recreation.

Problem.—Beach erosion control for 2.5 miles of ocean shore north of Haulover Beach Park.

Recommended plan.—Extend protective beach of the existing Dade County Beach Erosion Control and Hurricane Protection Project 2.5 miles north of Haulover Beach Park and periodic nourishment of new and existing project.

Environmental impact statement.—Final supplement filed with the Environmental Protection Agency in March 1983.

Total project cost.—$15,605,000.

Benefit/cost ratio.—2.9 to 1 at a discount rate of 8⅛ percent.

(F) MONROE COUNTY, FLORIDA

Location.—Southwest Florida Keys and south shore of Key West.

Purpose.—Shoreline protection, recreation.

Problem.—Major transportation artery and recreation are threatened by eroding shoreline.

Recommended plan.—Construction and periodic nourishment of 8,770 feet of shoreline.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in October 1983.

Total project cost.—$3,142,000.

Benefit/cost ratio.—7.9 to 1 at a discount rate of 8⅛ percent.

(G) JEKYLL ISLAND, GEORGIA

Location.—Glynn County, Georgia about 7 miles Southeast of Brunswick, Georgia.

Purpose.—Beach erosion control.

Problem.—Severe beach erosion is beginning to endanger development on this State Park which is one of Georgia's major recreational resources.

Recommended plan.—Restoration of about 5 miles of beach, construction of a 1,000 foot rubble-mound groin at the north end of the restored beach, and periodic nourishment of the restored beach.

Environmental impact statement.—Final statement filed with the Council on Environmental Quality in June, 1976.

Total project cost.—$10,450,000.

Benefit/cost ratio.—2.19 to 1 at a discount rate of 7⅞ percent.

(H) CASINO BEACH, ILLINOIS SHORELINE, ILLINOIS

Location.—Jackson Park on the south side of Chicago along the Lake Michigan shore, about seven miles from downtown Chicago.

Purpose.—Beach erosion control.

Problem.—Existing jetty at Casino Beach is deterioriated resulting in erosion of Casino Beach and shoaling in the recreational boat harbor downdrift of the jetty.

Recommended plan.—Reconstruction of the existing jetty.

Environmental impact statement.—Finding of no significant impact was signed by the District Engineers in February, 1983.

Total project cost.—$5,370,000.

Benefit/cost ratio.—3.9 to 1 at a discount rate of 7⅞ percent.

(I) INDIANA SHORELINE EROSION, INDIANA

Location.—Southern tip of Lake Michigan just west of Michigan City Harbor, Indiana.

Purpose.—Beach erosion control.

Problem.—Serious shore erosion problem immediately downdrift of Michigan City Harbor at the Indiana Dunes National Lakeshore area.

Recommended plan.—Construction of a sand beach berm along 2 miles of beach and periodic beach nourishment of the restored area.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency on March 25, 1983.

Total project cost.—$7,920,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 8⅛ percent.

(J) ATLANTIC COAST OF MARYLAND AND ASSATEAGUE ISLAND, VIRGINIA

Location.—Between Delaware Bay, Delaware and Chincoteague Inlet, Virginia.

Purpose.—Beach erosion control and hurricane protection.

Problem.—Severe beach erosion at highly developed Ocean City, Maryland. The entire reach of shoreline is subject to severe damage from high tides and waves during major storms. Erosion of

the beach has averaged over 2 feet per year at Ocean City and over 30 feet per year on the northern portion of Assateague Island.

Recommended plan.—Restoration of the beach at Ocean City, construction of a 33,500 foot dune line, and the installation of 9,600 feet of steel sheet pile bulkhead for 100-year storm protection.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in May, 1981.

Total project cost.—$35,200,000.

Benefit/cost ratio.—2.5 to 1 at a discount rate of 7⅞ percent.

(K) CAPE MAY POINT, NEW JERSEY

Location.—Along the southern New Jersey coastline in the borough of Cape May Point in Cape May County.

Purpose.—Shoreline protection, recreation.

Problem.—Severe shoreline recession resulting in wave and storm damage to Cape May Point.

Recommended plan.—Construction of dikes, and a dune and placement of beachfill along the Cape May Point shoreline.

Environmental impact statement.—Final statement was filed with the Council on Environmental Quality on October 8, 1976.

Total project cost.—$6,600,000.

Benefit cost ratio.—1.4 to 1 at a discount rate of 8⅜ percent.

(L) ATLANTIC COAST OF NEW YORK CITY FROM ROCKAWAY INLET TO NORTON POINT, NEW YORK

Location.—New York City metropolitan area.

Purpose.—Beach erosion control.

Problem.—Beach erosion at Coney Island and heavily used recreation beaches between Norton Point and Manhattan Beach and damage to residential and commercial development from hurricane tidal inundation.

Recommended plan.—Restoration of 2½ miles of beach with construction of a terminal groin at either end of the fill.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1978.

Total project cost.—$7,910,000.

Benefit/cost ratio.—1.0 to 1 at a discount rate of 7⅞ percent.

(M) WRIGHTSVILLE BEACH, NORTH CAROLINA

Location.—Wrightsville Beach is located in New Hanover County in Southeastern North Carolina. Wilmington is the principal city in the county.

Purpose.—Shoreline protection, recreation.

Problem.—Significant threat to life and property by continued shoreline erosion.

Recommended plan.—Modification of existing shore and hurricane wave protection project to extend period of Federal participation in the periodic nourishment.

Environmental impact statement.—Finding of no significant impact in the Chief of Engineers report dated December 19, 1983.

Total project cost.—See comments.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 8⅛ percent.

Comments.—Extends Federal participation in the periodic shoreline nourishment of the existing project at an estimated annual total cost of $717,000 and a Federal cost of $334,000.

(N) MAUMEE BAY STATE PARK, OHIO

Location.—Lucas County on South Shore of Lake Erie 5 miles east of Toledo.

Purpose.—Beach erosion control.

Problem.—Continued erosion of shoreline due to wind and wave action.

Recommended plan.—Replenishment of beach and construction of rubblemound breakwaters and rubblemound development along east end of park.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in April, 1984.

Total project cost.—$15,800,000.

Benefit/cost ratio.—1.65 to 1 at discount rate of 7⅞ percent.

(O) PRESQUE ISLE PENINSULA, ERIE, PENNSYLVANIA

Location.—South shore of Lake Erie at Erie, Pennsylvania.

Purpose.—Beach erosion control.

Problem.—Federal beach erosion control project constructed in cooperation with the State in 1956 has proven to be inadequate and has required sand replenishment periodically up to 1975 and annually since then to protect Federal structures and State park facilities.

Recommended plan.—Construction of a system of rubblemound breakwaters located offshore alone the lakeward length of Presque Isle Peninsula and parallel to the shoreline.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$28,100,000.

Benefit/cost ratio.—1.92 to 1 at a discount rate of 7⅞ percent.

(P) FOLLY BEACH, SOUTH CAROLINA

Located.—Ten miles south of Charleston, South Carolina on Folly Island.

Purpose.—Beach erosion control.

Problem.—Beach front development and recreation are threatened by eroding shoreline.

Recommended plan.—Restoration of about 3 miles of beach and periodic nourishment of restored beach.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in July 1980.

Total project cost.—$3,335,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(Q) WILLOUGHBY SPIT AND VICINITY, NORFOLK, VIRGINIA

Location.—Southern shore of the Chesapeake Bay in Norfolk, Virginia.

Purpose.—Beach Erosion Control.

Problem.—Storm damages to property and erosion of the shoreline.

Recommended plan.—Restoration of 7.3 miles of shoreline and subsequent periodic nourishment of the restored protective beach.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency on October 21, 1983.

Total project cost.—$4,230,000.

Benefit/cost ratio.—1.6 to 1 at discount rate of 8⅛ percent.

(R) VIRGINIA BEACH, VIRGINIA

Location.—Chesapeake Bay and Atlantic Ocean shoreline in the City of Virginia Beach.

Purpose.—Beach Erosion Control and Hurricane Protection.

Problem.—Violent coastal storms poise the potential for large property losses, beach erosion, and hazards to life.

Recommended plan.—The plan consists of a stepped-face seawall from Rudee Inlet to 57th Street, enhancement of the existing dune line from 57th to 89th Streets, and continuation of the existing Federal project of beach nourishment.

Environmental impact statement.—Final supplement was filed with the Environmental Protection Agency in February, 1985.

Total project cost.—$36,500,000.

Benefit/cost ratio.—1.9 to 1 at a discount rate of 8⅜ percent.

Subsection (b)(2) requires that all projects in this subsection be subject to a determination of the Secretary, after consultation with the Secretary of the Interior, that the project is in compliance with the Coastal Barrier Resources Act (Public Law 97-348).

MITIGATION

The following fish and wildlife mitigation projects are authorized by section 702(d):

(1) FISH AND WILDLIFE PROGRAM FOR SACRAMENTO RIVER BANK PROTECTION PROJECT, CALIFORNIA, FIRST PHASE

Location.—Sacramento, California.

Purpose.—Fish and wildlife mitigation.

Problem.—Acquisition of lands for mitigation of fish and wildlife losses associated with the first phase of the Sacramento River Bank Protection Project was not originally authorized.

Recommended plan.—Acquisition of 260 acres of land for mitigation.

Environmental impact statement.—Final statement of the overall project which described the need for this mitigation was filed with the Environmental Protection Agency in June, 1973.

Total project cost.—$1,415,000.

Benefit/cost ratio.—Not applicable.

(2) RICHARD B. RUSSELL DAM AND LAKE, SAVANNAH RIVER, GEORGIA AND SOUTH CAROLINA

Location.—On the Piedmont Plateau within Anderson and Abbeville Counties, South Carolina, and Hartwell and Elbert Counties, Georgia.

Purpose.—Fish and wildlife mitigation.

Problem.—About 26,650 acres of land will be inundated by the Richard B. Russell Lake.

Recommended plan.—Acquisition of about 11,400 acres of wildlife lands in Georgia about 10,100 acres in South Carolina, and more intensive wildlife management of 6,713 acres of federally-owned land at Clarks Hill Reservoir.

Environmental impact statement.—Final supplement to the final statement was made available in December, 1981.

Total project cost.—$20,160,000.

Benefit/cost ratio.—Not applicable.

(3) DAVENPORT, IOWA

Location.—At Nahant Marsh, a natural wetland which is located near the already authorized Federal flood protection project for the City of Davenport, Iowa.

Purpose.—Fish and wildlife mitigation.

Problem.—The Corps of Engineers flood control project which is authorized for Davenport, Iowa will have adverse effects on the Nahant Marsh, a unique wetland which is presently used for wildlife study. The flood control project would prevent the wetland from being periodically inundated by the Mississippi River and consequently destroy its wetland characteristics.

Recommended plan.—Acquisition and preservation of approximately 163 acres of marshland and the construction of structures to regulate water levels and floods into the marsh.

Environmental impact statement.—Final statement filed with the Environmental Project Agency in March, 1978.

Total project cost.—$497,000.

Benefit/cost ratio.—Not applicable.

Comments.—Construction of the already authorized Federal flood control project at Davenport, Iowa is contingent on the authorization of this mitigation plan.

(4) MISSOURI RIVER, FISH AND WILDLIFE MITIGATION; IOWA, NEBRASKA, KANSAS, AND MISSOURI

Location.—Missouri River between Sioux City, Iowa, and St. Louis, Missouri.

Purpose.—Fish and wildlife mitigation.

Problem.—Construction of the bank stabilization and navigation project could result in the loss of 100,000 acres of aquatic habitat and change in 422,000 acres of terrestrial habitat by year 2003 without action.

Recommended plan.—Restore and preserve 2,500 and 700 acres respectively of aquatic areas and 28,000 acres of timber-brush habitat, and develop 16,900 acres of public land.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December 1982.

Total project cost.—$50,500,000.

Benefit/cost ratio.—Not applicable.

(5) WEST KENTUCKY TRIBUTARIES PROJECT, OBION CREEK, KENTUCKY

Location.—Graves, Hickman, Carlisle, and Fulton Counties in southwest Kentucky.

Purpose.—Fish and wildlife mitigation.

Problem.—Construction of authorized flood control project on Obion Creek will adversely affect fish and wildlife resources in the area.

Recommended plan.—Acquisition and development of about 6,000 acres of woodland and wetland habitat.

Environmental impact statement.—Final supplement to final statement was filed with the Environmental Protection Agency in October, 1978.

Total project cost.—$4,900,000.

Benefit/cost ratio.—Not applicable.

(6) RED RIVER WATERWAY FISH AND WILDLIFE MITIGATION PLAN, LOUISIANA

Location.—In the vicinity of Red River in Avoyelles, Natchitoches and Werin Parishes, Louisiana.

Purpose.—Fish and wildlife mitigation.

Problem.—Construction of the Red River project will cause the loss or reduction in quality of terrestrial wildlife habitat.

Recommended plan.—Acquisition and management of up to 11,000 acres of bottomland hardwoods in Avoyelles Parish and up to 5,000 acres of mixed habitat near St. Maurice. Total land acquisition would be 14,000 acres.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1984.

Total project cost.—$11,200,000.

Benefit/cost ratio.—Not applicable.

(7) YAZOO BACKWATER PROJECT, MISSISSIPPI—FISH AND WILDLIFE MITIGATION REPORT

Location.—Backwater area is in west-central Mississippi between the east bank Mississippi River levee on the west and the hills east of the Yazoo River. Generally from Vicksburg to vicinity of Greenville.

Purpose.—Fish and wildlife mitigation.

Problem.—Intensification of agricultural activities associated with reduced flood hazard by Yazoo Area Pump Project would result in clearing of productive bottom-land forests.

Recommended plan.—Provide 11,300 acres of woodlands in perpetual land use easements or any other combination of easements and fee title that would provide the same level of mitigation.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in April 1983.

Total project cost.—$4,993,000.

Benefit/cost ratio.—Not available.

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(8) DOWNSTREAM MEASURES AT HARRY S TRUMAN DAM AND RESERVOIR, MISSOURI

Location.—The channel and overbank areas on the Osage River downstream from the Harry S Truman Dam near Warsaw, Missouri for about 90 miles to Bagnell Dam.

Purpose.—Fish and wildlife mitigation.

Problem.—Hydropower operations at the Harry S Truman Dam and Reservoir will damage overbank vegetation for about 30 miles downstream.

Recommended plan.—Purchase of 510 acres of land along the Osage River which will be protected by levees constructed under existing Corps authority and management of that land for wildlife purposes.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in November, 1980.

Total project cost.—$2,100,000.

Benefit/cost ratio.—Not applicable.

(9) PLAN FOR REPLACEMENT OF THE TRIMBLE WILDLIFE AREA, MISSOURI

Location.—The Missouri River flood plain about 20 miles east of Kansas City, Missouri.

Purpose.—Fish and wildlife mitigation.

Problem.—Smithville Lake inundates a portion of the Trimble Wildlife Area formerly operated by the Missouri Department of Conservation thereby making the area unsuitable for the type of management the Department has established.

Recommended plan.—Acquisition of 2,610 acres to replace the Trimble Wildlife Area.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1978.

Total project cost.—$7,870,000.

Benefit/cost ratio.—Not applicable.

(10) CAPE MAY INLET TO LOWER TOWNSHIP, NEW JERSEY

Location.—Atlantic Coast of New Jersey about 38 miles southwest of Atlantic City, New Jersey.

Purpose.—Fish and wildlife mitigation.

Problem.—Since the Federal Government constructed the Cape May Inlet jetties in 1911, the project area has experienced significant beach erosion. The city of Cape May also experiences storm related flood damages.

Recommended plan.—Beachfill, and periodic nourishment, construction and maintenance of two new groins and the maintenance of seven existing groins, a shoreline monitoring program, and construction of a weir-breakwater at Cape May pending demonstration of need.

Environmental impact statement.—Final supplement to final statement filed with the Environmental Protection Agency in August, 1981.

Total project cost.—$17,300,000.

Benefit/cost ratio.—Not applicable.

(11) COOPER LAKE AND CHANNELS, TEXAS

Location.—Cooper Lake is to be located near Commerce, Texas; the proposed mitigation area is located on the upper end of Wright Patman Lake.

Purpose.—Fish and wildlife mitigation.

Problem.—Significant habitat losses will occur with the construction of the Cooper Lake project.

Recommended plan.—Structural and non-structural measures, including development and management for wildlife on approximately 25,500 acres; development of three 0.5-acre waterholes per section; clearing and thinning of three 1-acre tracts per section in bottomland habitats; and development of two ground denning areas per section in semi-wooded and open-land habitats.

Environmental impact statement.—Final supplemental statement correcting the inadequacies of the final EIS filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$14,743,000.

Benefit/cost ratio.—Not applicable.

INLAND AND RECREATIONAL HARBORS

The following inland and recreational harbor projects are authorized by section 702(e):

(1) HELENA HARBOR, ARKANSAS

Location.—Phillips County in east central Arkansas, south of Helena, Arkansas along the West Bank of the Mississippi River.

Purpose.—Shallow draft navigation improvement.

Problem.—Lack of a suitable flood-free area for harbor development.

Recommended plan.—Construction of a slackwater harbor consisting of a 9 foot by 300 foot channel 5.5 miles long. Dredged material would be used to create 685 acres of flood-free land suitable for harbor development. 825 acres of bottomland hardwood would be purchased for mitigation purposes.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1979.

Total project cost.—$56,403,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 7 ⅞ percent.

(2) WHITE RIVER NAVIGATION TO BATESVILLE, ARKANSAS

Location.—On the lower 300 miles of the White River in east central Arkansas.

Purpose.—Shallow draft navigation improvement.

Problem.—River conditions, including shallow depths, narrow channel, and tight bendways result in inefficient and unsafe commercial navigation.

Recommended plan.—Improvement of channel to provide for a 200 foot wide by 9 foot deep channel to Newport, Arkansas. Improvement would be achieved by dredging, dikes, and bank paving. About 1,865 acres of bottomland hardwoods will be purchased for mitigation, along with possible aquatic management measures.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in January, 1981.

Total project cost.—$27,000,000.

Benefit/cost ratio.—1.1 to 1 at a discount rate of 7⅞ percent.

(3) LAKE PONTCHARTRAIN, NORTH SHORE, LOUISIANA

Location.—Southeastern Louisiana on the north shore of Lake Pontchartrain in the vicintiy of New Orleans.

Purpose.—Shallow draft navigation, beach erosion control, and recreation.

Problem.—The north shore of Lake Pontchartrain and nearby lowland areas are subject to severe damage by wind driven waves, especially during major hurricanes. The area is also subject to tidal flooding and shoreline erosion. There is need for a safe harbor for recreational craft.

Recommended plan.—The entrance channel, a mooring area and jetties at the mouth of Bayou Castine would be maintained by the Federal Government and a 25-acre beach would be created and periodically nourished.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$1,264,000.

Benefit/cost ratio.—3.9 to 1 at a discount rate of 7⅞ percent.

(4) GREEENVILLE HARBOR, MISSISSIPPI

Location.—On the Mississippi River about 2.5 miles downstream from Greenville, Mississippi.

Purpose.—Shallow draft navigation improvement.

Problem.—Serious need for additional general navigation facilities at Greenville to serve existing and projected growth in river traffic and associated industrial expansion.

Recommended plan.—Widening the existing channel into Greenville Harbor and dredging an off-river inner harbor channel. Material from channel dredging would be used to raise the adjacent lands to provide a 25-year flood frequency elevation.

Environmental impact statement.—Final statement filed with the Council on Environmental Quality in August, 1973.

Total project cost.—$42,600,000.

Benefit/cost ratio.—7.3 to 1 at a discount rate of 7⅞ percent.

(5) VICKSBURG HARBOR, MISSISSIPPI

Location.—Along the Yazoo and Mississippi Rivers in the vicinity of Vicksburg, Mississippi.

Purpose.—Shallow draft navigation improvement.

Problem.—Lack of adequate sites for waterfront development in the vicinity of Vicksburg, and unsafe channel widths in the Yazoo River Diversion Canal and its approach channel.

Recommended plan.—Construction of a new off-river navigation channel, with dredged material being used to provide 500 acres of landfill for development sites. The existing Yazoo River Diversion Canal and its approach channel will also be widened. The purchase

of 1,000 wooded acres will serve as mitigation for the lands required for project construction and maintenance.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in December, 1982.

Total project cost.—$77,700,000.

Benefit/cost ratio.—2.4 to 1 at a discount rate of 7⅞ percent.

(6) SAINT LOUIS HARBOR, MISSOURI AND ILLINOIS

Location.—On the Mississippi River in the vicinity of the Port of Metropolitan St. Louis.

Purpose.—Shallow-draft navigation improvement.

Problem.—Lack of readily developable land with water access and inadequate water depth in two areas of the Harbor.

Recommended plan.—Construction of an "L" dike or similar structure to provide reliable water access; excavation in the Chain of Rocks canal bank back about 210 feet for a length of 6,900 feet. Environmental and recreational features will also be provided.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in June, 1983.

Total project cost.—$30,340,000.

Benefit/cost ratio.—1.4 to 1 at a discount rate of 8⅜ percent.

(7) OLCOTT HARBOR, NEW YORK

Location.—South shore of Lake Ontario at the mouth of Eighteen Mile Creek.

Purpose.—Recreation and shallow draft navigation.

Problem.—A growing shortage of berthing space along Lake Ontario's perimeter and the existance of heavy wave action during northerly storms in Olcott Harbor. In addition, there is the need for increased access to the lakeshore for the purpose of recreational fishing.

Recommended plan.—Construction of breakwaters, a stone jetty, and recreation fishing facilities, and additional channel dredging.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in September, 1979.

Total project cost.—$12,445,000.

Benefit/cost ratio.—1.3 to 1 at a discount rate of 7⅞ percent.

(8) MEMPHIS HARBOR, TENNESSEE

Location.—President's Island in the Mississippi River, south of Memphis, Tennessee.

Purpose.—Shallow draft navigation.

Problem.—Lack of adequate harbor development sites to meet projected demands.

Recommended plan.—Dredging of a new navigation channel into President's Island for a slackwater harbor with the dredge fill being used to create a 1,000 acre flood free area for industrial development.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in February, 1980.

Total project cost.—$106,105,000.

Benefit/cost ratio.—4.2 to 1 at a discount rate of 7⅞ percent.

(9) KENTUCKY RIVER

DISPOSITION OF KENTUCKY RIVER, KENTUCKY, LOCKS AND DAMS 5 THROUGH 14

Location.—East-central Kentucky.

Purpose.—Inland navigation.

Problem.—Continued operation and maintenance of the locks and dams for the authorized purpose of commercial navigation is not economically feasible.

Recommended plan.—Public Law 84-996 (An Act to provide for the disposal of federally owned property at obsolete canalized waterways) is amended by adding Kentucky River, Kentucky, Locks and Dams 5 through 14 to the list of projects contained in Section 1 of the Act. This provision names those project structures the Secretary of the Army has found to be uneconomic. A proviso to Section 3 of the Act is added, limiting disposal of the project to state or local governments for a period of two years following enactment.

Environmental impact statement.—Not applicable.

Total project cost.—Disposal of the subject locks and dams will eliminate all Federal maintenance costs which are currently $2,000,000 a year.

Benefit cost ratio.—Not applicable.

(10) ATLANTIC INTERCOASTAL WATER WAY—REPLACEMENT OF FEDERAL HIGHWAY BRIDGES IN NORTH CAROLINA

Location.—Three bridges located in eastern North Carolina: Core Creek Bridge, about 8 miles north of Morehead City, N.C.; Fairfield Bridge, approximately 75 miles east of Washington, N.C.; and Hobucken Bridge, approximately 30 miles east of New Bern, N.C.

Purpose.—Assumption of State cost-sharing requirement under 1970 Rivers and Harbors Act.

Problem.—The 1970 Rivers and Harbors Act authorized the replacement of five substandard highway bridges at 75 percent Federal funding. After the State of North Carolina withdrew its cost sharing offer in 1974, the Water Resources Development Act of 1976 deleted non-Federal cost sharing requirements for two of these bridges. The three remaining bridges listed here were not included in this modification. All three were constructed in the early 1930s and are grossly inadequate to handle existing traffic and constitute a hazard.

Recommended plan.—Modify section 101 of the 1970 Rivers and Harbors Act to relieve the State of North Carolina of any cost sharing responsibility with respect to the three bridges.

Environmental impact statement.—Final statement was filed with the Environmental Protection Agency in November, 1970.

Total project cost.—$8,800,000.

Benefit/cost ratio.—Not applicable.

BANK STABILIZATION

The following bank stabilization projects are authorized by section 702(f):

(1) BETHEL, ALASKA

Location.—Kuskokwim River Valley, 400 miles west of Anchorage, Alaska.

Purpose.—Riverbank stabilization.

Problem.—Severe erosion of the riverbank at Bethel, Alaska resulting in adverse impacts on the surrounding 48 villages.

Recommended plan.—Installation of 5,000 feet of rock riprap bank protection to reduce erosion rate by 15 feet per year.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in April, 1983.

Total project cost.—$16,110,000.

Benefit/cost ratio.—1.2 to 1 at a discount rate of 7⅞ percent.

DEMONSTRATION

The following demonstration projects are authorized by section 702(g):

(1) CABIN CREEK, WEST VIRGINIA

Location.—Within the Cabin Creek drainage area of Kanawha County, West Virginia.

Purpose.—Demonstration reclamation project.

Problem.—Serious chronic flooding of the Cabin Creek watershed and significant erosion and sedimentation caused by coal mining operations is also a problem.

Recommended plan.—Includes measures for erosion and sediment control, flood damage reduction, water quality control, water supply, recreation, and fish and wildlife enhancement.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in July, 1981.

Total project cost.—$43,000,000.

Benefit/cost ratio.—Not applicable.

(2) LAVA FLOW CONTROL, ISLAND OF HAWAII

Location.—On the Island of Hawaii, extending from an area near the summit of Mauna Loa to Hilo.

Purpose.—Lava flow control.

Problem.—Potential for extensive property damage to the city of Hilo in the event of lava flows from the northeast rift of Mauna Loa.

Recommended plan.—In the event of a volcanic eruption, earthen diversion barriers for flowing lava would be constructed. An estimated nine miles of barriers would be built.

Environmental impact statement.—Final statement filed with the Environmental Protection Agency in March, 1981.

Total project cost.—$5,470,000.

Benefit/cost ratio.—8.5 to 1 at a discount rate of 7⅞ percent.

TITLE VIII

Part A of this title requires the gradual doubling of the existing inland waterways fuel tax established under Public Law 95-502. Part B of this title creates a Harbor Maintenance Trust Fund to

pay a portion of the cost of maintaining coastal channels and harbors. The Trust Fund would be financed by a national uniform fee on the value of cargo loaded or unloaded at the Nation's commercial harbors.

PART A—INLAND WATERWAYS

SECTION 801

This section amends section 4042 of the Internal Revenue Code of 1954 as amended by Public Law 95-502. That statute imposes a tax on the fuel used by barges operating on a portion of the inland navigation system. Under existing law this tax will reach 10 cents per gallon at the start of fiscal year 1986, and remain at that level.

Under this section, the tax on barge fuel will be continued at 10 cents per gallon until January 1, 1988, when it would be increased to 11 cents per gallon, then increased a penny per gallon each year until it reaches 20 cents per gallon on January 1, 1997. The tax will remain 20 cents per gallon in subsequent years, unless changed by act of Congress.

Receipts from this tax are deposited into the Inland Waterways Trust Fund. Subject to authorization, monies in the Inland Waterways Trust Fund may be appropriated for obligation by the Secretary for construction of commercial inland navigation projects by the Corps. Sections 501 and 803 of this bill authorize money to be spent from the Trust Fund to pay half the cost of the six inland lock projects authorized in this bill.

SECTION 802

This provision adds the Tennessee-Tombigbee Waterway to the list of inland waterways on which the tax on barge fuel is to be collected. This waterway was not included on the list of waterways in Public Law 95-502 because at the time the Tennessee-Tombigbee Waterway was under construction and no commercial traffic used the system. In the late spring of 1985, after a Federal expenditure of close to $2 billion, the Tennessee-Tombigbee was opened to commercial traffic. It is, therefore, appropriate to include this waterway on the list of waterways on which the barge fuel tax is to be applied.

SECTION 803

This section, in coordination with section 501, specifically authorizes the appropriation of monies from the Inland Waterway Trust Fund to the Secretary for a position of the cost of construction of the inland navigation lock and dam projects authorized in section 502 and 504(e) of this act.

These projects are: Oliver Lock, Alabama; Gallipolis Lock and Dam, Ohio and West Virginia; Bonneville Lock and Dam, Oregon and Washington; Lock and Dam 7 and Lock and Dam 8 on the Monongahela River, Pennsylvania; and the second chamber of Lock and Dam 26, Illinois and Missouri.

Trust Fund monies can neither be used for operations and maintenance of locks and dams, nor for construction of inland harbor projects. The term construction is defined to mean construction, re-

habilitation, or modification, including the costs of post authorization planning.

PART B—HARBOR MAINTENANCE

SECTION 811

This section provides several definitions for this title as follows: (1) the term "commercial cargo" means any commodity, class or category of commodities, or classification of articles of waterborne commerce, including the carriage of transportation of passengers for hire. This term does not mean bunker fuel, ships' stores, sea stores, unprocessed fish and aquatic animals fresh caught in voyage, or the legitimate equipment necessary to the operation of a vessel.

Fish and aquatic animals which are unprocessed includes fish and seafood which have been cleaned and fileted at sea and those frozen in bulk. The term "fish and other aquatic animals" means finfish, mollusks, crustaceans, and all other forms of marine life, other than marine animals and birds. For example, lobsters and shrimp are within the terms of this definition, and would therefore be excluded from the tax.

The value of such seafood brought into the Nation's harbors is minor in comparison to the difficulties inherent in collecting a tax from fishermen. Further, no other food source is subject to Federal tax at the point of harvest.

(2) The term "commercial vessel" means a vessel engaged in waterborne commerce, but does not mean any vessel engaged primarily in the short-haul ferrying of passengers or vehicles between points within the United States, or vessels owned by the United States Government;

(3) The term "person" means partnership, corporation, or other business organizations, and also any government or governmental unit or agency engaged in waterborne commerce other than the governments of the United States, Canada, a State, or a State's political subdivisions, or agencies. The term does not include public or quasi-public corporations or entities operating under a charter under the authority of the United States, Canada, a State, a political subdivision of a State or an interstate authority, agreement or compact;

(4) The term "State" means any of the States of the United States, the District of Columbia, as well as the Commonwealth of Puerto Rico and any other territories or possession of the United States.

(5) The term "value" means the declared value of any commercial cargo shown by a sworn declaration of value which is required by subsection 816 (a) of this title, or by any bill of lading, cargo manifest, contract for carriage or other documentary evidence of value, or if the cargo does not have a declared value, the fair market value of the cargo as determined by the Secretary of the Treasury. In the case of carriage or transportation of passengers for hire, the term "value" means the actual charge paid for such service or the prevailing charge for comparable service if no actual charge is paid; and

(6) The term "waterborne commerce" means any commercial activity relating to the carriage or transportation of commercial cargo by a commercial vessel.

SECTION 812

This section establishes a Harbor Maintenance Trust Fund in the Treasury of the United States. The Secretary of the Treasury, in consultation with the Secretary of the Army, shall report annually to Congress on the operation and states of this Trust Fund. The Secretary of the Treasury is to transfer into the Trust Fund each month a sum equal to the amount collected in the preceding month from the fees established in sections 813, 814, and 815, plus an amount equal to the preceding month's collections from tolls on the U.S. portion of the St. Lawrence Seaway. Congress may also appropriate funds into the trust fund.

Monies in the trust fund are to be used only for the purposes authorized under Section 607 of this act. Section 607 provides that monies in the Trust Fund can be used only to pay 100 percent of the operation and maintenance costs of U.S. portions of the St. Lawrence Seaway, plus up to 40 percent of the operation and maintenance costs of the commercial channels and harbors of the United States.

In the planning and implementaton of navigation projects within the Great Lakes, the Secretary shall consult and cooperate with the respective State or States in choosing nearshore or onshore disposal areas for dredged material that might prove suitable for beach nourishment.

SECTION 813

This section establishes a national uniform fee of 0.04 percent (4 cents per $100) on the value of any commercial cargo loaded onto or unloaded from any commercial vessels using the harbors of the United States. This fee does not apply to cargo unloaded from a vessel and then reloaded back onto the same vessel at the same harbor.

SECTION 814

This section imposes a similar uniform fee of 0.04 percent on the value (4 cents per $100) of any commercial cargo on a vessel using Great Lakes navigation improvements operated or maintained by the United States. No matter how many navigation improvements a vessel may use, a particular shipment of cargo on a particular vessel shall be assessed this fee only once.

SECTION 815

This section imposes a fee of $0.005 (½ of a cent) per net registered ton on a vessel utilizing a commercial channel or harbor including Great Lakes navigation improvements, for purposes other than loading or unloading commercial cargo. This would include such things as bunkering, refitting, or repair. This fee can be assessed a maximum of three times on any vessel during any fiscal year.

SECTION 816

This section requires the person or agent who sends commercial cargo by water to provide the master of the vessel on which the cargo is transported, a sworn declaration of the value of the cargo being transported. The vessel master will then provide the information contained in this sworn declaration to the Customs Service of the United States or other agent designated by the Secretary of the Treasury to receive such information.

Upon the loading or unloading of the vessel's cargo in any commercial channel or harbor in the United States, including Great Lakes facilities operated and maintained by the United States.

SECTION 817

The section provides that the taxes imposed by this title be collected, except for the Great Lakes, at the port of loading for foreign-bound cargo, and at the point of unloading for all other cargo. Within the Great Lakes, the taxes are to be collected at points designated by the Secretary of the Treasury. The Secretary of the Treasury shall also issue regulations on the collection of the taxes on vessels using harbors for purposes other than the loading or unloading of cargo.

SECTION 818

This section makes a number of changes in Public Law 83-358 to incorporate the U.S. portion of the St. Lawrence Seaway into the national system of coastal channels and harbors. This section authorizes the St. Lawrence Seaway Corporation to accept appropriations from the Harbor Maintenance Trust Fund established in section 812 of this title. In addition, the section would waive the tolls on the Seaway whenever U.S. tolls on the Seaway on a particular voyage exceeded the cargo fee imposed by section 813 of this Title.

Thus, vessels which have paid the fee authorized by section 814 will not be assessed tolls on the U.S. portion of the St. Lawrence Seaway.

There are inherent difficulties in attempting to incorporate the U.S. locks on the Seaway into the national habor system, particularly in view of the complex nature of the joint Canadian/United States administration of the Seaway and its toll structure.

SECTION 819

This section directs the Secretary of State, in consultation with the Secretary of Transportation, to initiate discussions with the Canadian government on the economic effects of reducing or eliminating all tolls on the Great Lakes and St. Lawrence Seaway. The Secretary of Transportation is to report to the Congress on these discussions with two years of the date of enactment of this bill.

HEARINGS

The legislation reported on here is the product of more than four years of effort by the Subcommittee on Water Resources. During its development by the Subcommittee, a total of twenty-six hearings were held over a period of three Congresses.

During the 99th Congress, the Subcommittee on Water Resources held two hearings on S. 366, the Water Resources Development Act of 1985, and other related bills. These hearings were held on May 10 and 16, 1985.

In the 98th Congress, eight hearings were held in Washington, D.C., and three field hearings were held. The dates and subjects of these hearings are listed in Senate Report 98–340.

During the 97th Congress, a total of 13 hearings were held: four on water policy issues, and nine on port development and inland waterway issues.

ROLLCALL VOTES

Section 7(b) of rule XXVI of the Standing Rules of the Senate and the rules of the Committee on Environment and Public Works require that any rollcall votes taken during consideration of legislation be noted in the report on that legislation.

No rollcall votes were taken on this legislation. This bill was ordered reported by voice vote with Senator Mitchell requesting to be recorded as having voted against reporting the bill.

COST OF LEGISLATION

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, July 30, 1985.

Hon. ROBERT T. STAFFORD,
Chairman, Committee on Environment and Public Works, U.S. Senate, Dirksen Senate Office Building, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the attached cost estimate for the Water Resources Development Act of 1985.

If you wish further details on this estimate, we will be pleased to provide them.

With best wishes,
Sincerely,

ERIC HANUSHEK
(For Rudolph G. Penner).

CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

1. Bill number: Not yet assigned.
2. Bill title: Water Resources Development Act of 1985.

3. Bill status: As ordered reported by the Senate Committee on Environment and Public Works, July 18, 1985.

4. Bill purpose: This bill authorizes the Secretary of the Army, acting through the Corps of Engineers (Corps), to study, design, construct, and modify water resources projects and to undertake several water resources demonstration projects. In addition, the bill outlines new cost-sharing practices for water resource projects carried out by the Corps and establishes a Federal Dam Safety Review Board and a High Plains Study Council.

The bill also establishes a nationally uniform commercial vessel fee used to finance a portion of the operation and maintenance costs of commercial channels and harbors. In addition, it increases relative to current law the tax on diesel and other liquid fuels from 10 cents to 20 cents a gallon over a 10-year period beginning January 1, 1988. Revenues from the tax will be deposited into the Inland Waterways Trust Fund and will be used to finance 50 percent of the construction costs of inland waterway lock and dam projects.

Finally, Title I of the bill places a ceiling on amounts available for obligation for Corps activities funded from the "Construction, General" and the "Flood Control, Mississippi River and Tributaries" accounts in fiscal years 1986 through 1990.

5. Estimated cost to the Federal Government: The estimated budget impact of the projects and activities authorized or mandated in this bill, assuming the necessary appropriations, is shown in the following table for fiscal years 1986 through 1990:

[By fiscal years, in billions of dollars]

	1986	1987	1988	1989	1990
Estimated authorization level	0.2	0.3	0.4	0.4	0.5
Estimated outlays	.1	.2	.4	.4	.5

In addition, it is estimated that outlays of $11.4 billion will be incurred by the federal government during the fiscal years 1991 through 1998 as a result of enactment of this bill. Upon completion of all the projects, total operations and maintenance expenditures will be about $0.1 billion annually (in 1985 dolars). These federal costs will be offset by nonfederal reimbursements totaling $9.4 billion over 30 years.

The authorization levels and outlays for 1989 and 1990 in this table have been adjusted downward to reflect the impact of the obligation ceilings set in Title I. These ceilings limit total general fund obligations for all Corps construction activities to $1.3 billion annually in fiscal years 1986 through 1990. The ceilings exceed projected funding levels under this bill for 1986, 1987 and 1988, but will reduce outlays by $365 million in 1989 and $980 million in 1990 below levels that would otherwise be projected under this bill.

Enactment of this bill would increase federal revenues in a number of ways. The bill establishes a tax on the value of all waterborne commercial cargo loaded or unloaded at a U.S. port. The bill also imposes a tax on any vessel using a U.S. port for purposes

other than loading or unloading. Finally, the bill increases the existing excise tax on diesel and other liquid fuels used by commercial cargo vessels. Estimated revenues are summarized in the following table.

[By fiscal years, in billions of dollars]

	1986	1987	1988	1989	1990
Estimated revenues	0.2	0.2	0.2	0.2	0.3

This bill deauthorizes three projects or portions of projects. The estimated budget impact of these deauthorizations, assuming they would otherwise have been funded, is as follows:

[By fiscal years, in billions of dollars]

	1986	1987	1988	1989	1990
Estimated authorization level	(1)	(1)	−0.1	−0.1	−0.1
Estimated outlays	(1)	(1)	−.1	−.1	−.1

[1] Less than $500 million.

In addition, it is estimated that federal outlays would be reduced by approximately $0.6 billion over the fiscal years 1991 through 1998 as a result of these deauthorizations. The bill also contains two sunset provisions that will automatically deauthorize projects and studies that have not received funding within specified periods. While there is no clear basis for estimateing the precise impact of this provision, there are currently projects and studies having total first costs of approximately $27 billion that meet the criteria for deauthorization set forth in this bill.

There are a number of provisions of this bill for which no cost estimate could be made. These include: general programmatic provisions in Title II, which direct the Secretary to enter into cost-sharing agreements with private parties benefiting from flood control construction projects; stipulations that future small watershed projects must provide at least 20 percent of their benefits to agriculture; prohibitions against initiation of construction on projects that have been modified; authorizations to modify projects under certain circumstances for mitigation of fish and wildlife; and the impact of new-cost sharing formulas outlined in Titles VI and VII as they relate to projects authorized by other acts of the Congress.

The costs of this bill fall primarily within budget function 300.

Basis of estimate: Titles III, V, VI, and VII of this bill authorize funds for construction, modifiation and maintenance of water resources projects. In most cases, the bill specifies estimated total costs for each project in October 1984 dollars. Where costs are not specified in that way, CBO has obtained estimates from the Corps to reflect prices in October 1984 dollars. In this estimate, these will be referred to as "first costs." For the purpose of projecting the budget impact of these titles, first costs were adjusted to reflect the impact of inflation during the time lags between authorization, appropriation and the beginning of construction.

In preparing estimates of the budget impact of authorizing legislation, it is normally assumed that the full authorization level will be funded beginning immediately upon enactment. Such an assumption would not be realistic for this legislation because of its size and scope. Thus, although this estimate assumes that the full amount authorized will be funded, a methodology was designed to approximate the normal lag in funding water projects. Recognizing the difficulty of estimating the timing of appropriation action for a particular project, the methodology is based on historical patterns and requires no explicit determination of when specific projects will be funded. The methodology uses an average time lag, based on ten years of historical data, for the length of time between the year of authorizaton and the year of first appropriation for advanced engineering and design and construction of similar projects. Outlays associated with project authorizations were estimated based on information from the Corps. They were then lagged in accordance with the calculated average time lag mentioned above, and were finally adjusted to reflect inflation. Authorization levels were estimated based on historical outlay rates for affected programs.

For the purposes of this estimate, it is assumed that all projects authorized by this bill will be constructed. Although this bill contains a number of sunset provisions, all projects and studies authorized in this bill are assumed to receive at least some funding within the stipulated periods. It is assumed that the bill will be enacted by October 1985 and that the necessary appropriations will be provided each year.

The remainder of this section displays the costs to the federal government and to state and local governments of each title, and discusses the basis for such estimates. Total outlays displayed in the following tables for individual titles have not been adjusted to reflect the impact of obligation ceilings.

Title I

Title I places a ceiling of $1.3 billion on annual obligations to be made in fiscal years 1986 through 1990 for all Corps general construction activities and for flood control programs on the Mississippi River and its tributaries.

In the absence of the ceilings set in title I, total spending for these projects would be determined by future appropriation action. Thus, no precise estimate of the budget impact of these ceilings could be made, since appropriations for fiscal years 1986 thorugh 1990 have yet to be enacted. However, for the purposes of this estimate, the total funding estimated to be necessary to implement this bill was added to CBO's most recent estimate of the Corps' current services budget for ongoing construction activities. Total authorizations and outlays resulting from this bill were then reduced in any year where total projected funding exceeded the ceiling. The authorization level and outlays adjusted in this way are displayed in the summary table. Based on this methodology, it is estimated that federal outlays resulting from this bill will be reduced by $365 million in fiscal year 1989 and by $980 million in fiscal year 1990 as a result of the obligation ceilings.

Title II: General provisions

Title II establishes and authorizes funding for several studies, programs and demonstration projects for general research and technical assistance to communities. Projects include studying river ice problems; studying methods for the rehabilitation of old industrial sites; providing technical assistance for the Ogallala Aquifer region; undertaking construction of nonstructural flood control, shoreline protection, and stream bank erosion projects; and mitigating fish and wildlife damage resulting from water resource projects.

Authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Federal Government:					
Authorization level	68	65	65	65	65
Estimated outlays	17	33	55	57	61
State and local governments:					
Estimated outlays			1	2	3

Title II specifies that the General Services Administration is authorized to dispose of excess Corps dredging vessels. It is estimated that this provision will increase federal receipts by approximately $100,000 per year over the next five years.

There are a number of sections in Title II for which no estimate of the cost to the federal government could be made. All of these sections contain general programmatic provisions that will affect projects carried out by the Corps and by the Soil Conservation Service of the Department of Agriculture. These include provisions that direct the Secretary to enter into cost-sharing arrangements with private parties expected to receive, in increased property values, 10 percent or more of the flood control benefits of water resources projects; stipulate that proposed small watershed protection projects submitted to the Congress for approval must provide at least 20 percent of their benefits directly to agriculture; prohibit initiation of construction of any water resource project that has been modified to increase certain parameters more than 25 percent; and eliminate the California Debris Commission, thereby transferring additional responsibilities to the Corps.

Finally, Title II contains two "sunset" provisions. Section 203 establishes a process to deauthorize automatically any Corps project on which construction has not begun within 10 years of its authorization unless the Secretary requests continued authorization. Section 204 rescinds authority for the Corps to conduct project surveys authorized by law if no funds have been spent on that survey within five years. For the purposes of this estimate, it was assumed that all projects and feasibility studies authorized in this bill will receive at least some funding during these specified periods following enactment.

For projects or feasibility surveys authorized by prior or future acts of the Congress, there is no clear basis upon which to estimate

these budget impact of the two sunset provisions. Based on the Corps of Engineers' most recent analysis, however, it is estimated that there are 675 active, deferred, and inactive projects that were authorized for construction prior to 1976 and that have not received construction funds. These projects are estimated to have a total federal first cost of $26.4 billion. In addition, while the Corps has no complete record of individual study resolutions, there are currently 206 inactive studies and 103 active studies authorized prior to 1980 that have received no funds. These studies have a total estimated federal cost of $220 million. All of these projects and studies meet the criteria for deauthorization set forth in this title.

Title III: Project provisions

The 34 sections of this title contain provisions for studies, demonstration projects, name changes, water and power contract revisions, new programs, and miscellaneous project modifications. Authorizations for appropriations totaling $63 million in fiscal year 1986, $1 million in fiscal year 1987, and $1 million in fiscal yaer 1988 are included for eight provisions. For six of the project provisions, estimated federal first costs totaling $68.8 million are included in the bill. The cost of the remaining provisions was estimated based on information from the Corps of Enginers. All of these costs were then adjusted to reflect inflation during the period between authorization and construction.

Total estimated authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Federal Government:					
Estimated authorizaion level	64	34	51	82	59
Estimated outlays	12	33	55	80	66
State and local governments:					
Estimated outlays	(1)	(1)	(1)		1

[1] Less than $500,000.

In addition, it is estimated that outlays of approximately $113 million will be incurred by the federal government over the fiscal years 1991 through 1995 as a result of enactment of these authorizations. Subsequently, annual federal operations and maintenance costs will be reduced by about $6 million (in 1985 dollars). The cost of these provisions to state and local governments beyond 1990 is expected to be approximately $2 million a year (in 1985 dollars).

Title III also deauthorizes three projects or portions of projects with a total federal first cost of approximately $625 million. Assuming that these projects would otherwise have been funded, the estimated reductions in authorization levels and outlays associated with this title are as follows:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Federal Government:					
Estimated authorization level	−5	−41	−103	−73	−121
Estimated outlays	−4	−30	−85	−82	−107
State and local governments:					
Estimated outlays	−1	−7	−11	−9	−11

In addition, it is estimated that federal outlays will be reduced by approximately $380 million and outlay by nonfederal units of government by about $36 million over the fiscal years 1991 through 1998, as a result of these deauthorizations. Subsequently, annual operations and maintenance costs will be reduced by approximately $10 million for the federal government and by approximately $1 million for nonfederal units of government. (Operation and maintenance costs are expressed in 1985 dollars.)

Title V: Dam safety

Title IV is to be known as the Dam Safety Act of 1985. This title establishers and funds a program of grants to states to aid in establishment and maintenance of state dam safety programs and creates a federal dam safety review board to oversee implementation of this program.

Appropriations are authorized for each of fiscal years 1986 through 1990 for the purpose of carrying out the federal dam safety program, providing technical assistance to states and conducting an inventory of dams. Total authorizations and outlays associated with dam safety in Title IV are presented in the following table.

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Federal Government:					
Authorization level	13	13	13	13	13
Estimated outlays	11	13	13	13	13
State and local government:					
Estimated outlays	11	13	13	13	13

Title V: Inland navigation

Section 501 authorizes the use of 50 percent of the funds deposited in the Inland Waterways Trust Fund (IWTF) for financing commercial navigation construction project on locks and dams of the inland waterway system. Section 502 authorizes the construction of five lock and dam improvement projects on the inland system. The Corps estimates that these five project plus locks and dam 26 (authorized in section 504) will have a total federal first cost of approximately $760 million in 1985 dollars.

Section 503 authorizes the Secretary to pay 50 percent of the costs to operate, maintain and rehabilitate the New York State Barge Canal. Federal expenditures for the purposes of rehabilita-

tion will be subject to an annual cap of $5 million. Because rehabilitation and operation and maintenance activities are already being carried out on the canal, it was assumed in this estimate that funds would be appropriated beginning in fiscal year 1986 to cover the federal share. Federal outlays associated with Section 503 are estimated to be approximately $11 million in fiscal year 1986, $12 million each in fiscal years 1987 and 1988, and $13 million each in fiscal years 1989 and 1990. Subsequently, annual costs will be approximately $16 million (in 1985 dollars) through fiscal year 2000.

Section 504 is to be known as the Upper Mississippi River System Management Act of 1985 and gives Congressional recognition to the Upper Mississippi River System as a nationally significant commercial navigation system. The section approves the system's master plan, authorizes the Secretary of the Army to monitor traffic movements on the system, and authorizes the Secretary of the Interior to implement a number of programs in accordance with the master plan. The section specifically authorizes funds for the programs to be carried out by the Department of the Interior. In addition, Section 504 authorizes the Secretary to provide for the engineering, design and construction of a second lock at locks and dam 26 on the Mississippi River. It is estimated that federal outlays associated with Section 504 (excluding locks and dam 26) will total $13 million in fiscal year 1986, $17 million in fiscal year 1987, and $19 million each in fiscal years 1988, 1989, and 1990.

Total estimated authorization levels and outlays associated with Title V are as follows:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Federal Government:					
Estimated authorization level	34	55	74	97	115
Estimated outlays	26	47	68	90	109

In addition, it is estimated that outlays of approximately $1.1 billion will be incurred by the federal government over the fiscal years 1991 through 1998 as a result of these authorizations. Subsequently, annual federal operations and maintenance expenditures will be approximately $13 million (in 1985 dollars).

Title VI: Harbor construction

Sections 601 and 602 of this title specify new cost-sharing formulas for the study, construction, and maintenance of harbor projects. Under the provisions of these sections, nonfederal interests shall be responsible for 50 percent of the surveying, planning designing and engineering costs incurred prior to construction, as well as 10 percent of the construction costs for projects constructed to depths of less than 20 feet; 25 percent of the construction costs associated with depths between 20 feet and 45 feet; and 50 percent of the contruction costs associated with depths greater than 45 feet. In addition, nonfederal interests will be responsible for paying an additional 10 percent of the total construction costs (including lands, easements, and rights of way) over a 30-year period after construc-

tion is completed. Section 602 also specifies that nonfederal interests in deep-draft projects will be responsible for 50 percent of the incremental maintenance costs for deep draft projects over 45 feet. The budget effects of these new construction cost-sharing provisions on the projects authorized in this bill have been incorporated in the cost estimate of this title.

Section 604 authorizes nonfederal interests to undertake navigational improvements to harbors of the United States and outlines cost-sharing for maintenance of deep draft ports and relocation and alteration of pipelines, cables, and related facilities. Since no basis exists for predicting which future projects will be affected by this provision, no estimate of its future budget impact beyond the projects authorized in this bill is included in this estimate.

Section 605 outlines a process for expedited approval of harbor improvement projects to be recover costs of construction and incremental maintenance for projects undertaken pursuant to this title through the collection of user fees. These provisions will have no significant budget impact on the federal government but will affect the ability on nonfederal entities to undertake harbor improvement projects.

Section 607 authorizes appropriations from the Navigation Trust Fund created in Title VIII to cover 100 percent of the operation and maintenance costs of the U.S. portion of the St. Lawrence Seaway and up to 40 percent of the operation and maintenance costs of all commercial channels and harbors and all Great Lakes navigational improvements maintained by the Corps. This section further authorizes appropriations from the General Fund of the Treasury to cover the balance of these costs not covered by the trust fund.

Section 609 authorizes the construction of 32 general cargo and deep draft harbor improvement projects, with a federal first cost of $854 million in October 1984 dollars. The estimated authorization levels and outlays associated with Title VI are as follows:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Federal Government:					
Estimated authorization level	1	10	22	193	66
Estimated outlays	1	7	18	53	156
State and local governments:					
Estimated outlays	1	6	16	55	172

In addition, it is estimated that outlays of approximately $2.7 billion by the federal government and $1.9 billion by nonfederal entities will be incurred over the fiscal years 1991 through 1996 as a result of these authorizations. Subsequently, annual federal operation and maintenance expenditures will be approximately $100 million (in 1985 dollars). It is estimated that nonfederal annual operation and maintenance costs will be about $70 million. The federal outlays for harbor projects will be offset by nonfederal reimbursements totaling approximately $490 million over 30 years beginning in fiscal year 1996.

Title VII

Title VII specifies new cost-sharing requirements for the construction of any new non-navigation water resource project or related land resources project authorized either by this bill or after the date of enactment of this bill. The cost estimate for title VII reflects the budget impact of thse cost-sharing provisions as they will affect projects authorized by this legislation. No estimate of the budget impact of the new construction cost-sharing formulas could be made for projects authorized by other acts of the Congress.

This title also authorizes the Secretary to undertake works of improvement on 77 flood control projects at a federal first cost of $3.0 billion, 10 hydropower development projects at a federal first cost of $2.6 billion, 18 shoreline protection projects at a federal first cost of $160 million, 11 fish and wildlife mitigation projects at a federal first cost of $130 million, 10 inland and recreational harbor projects at a federal first cost of $200 million, one bank stabilization project at a federal first cost of $12 million, and two demonstration projects at a federal first cost of $4 million. Total estimated authorization levels and outlays associated with these projects are as follows:

[By fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Federal Government:					
Estimated authorization level	19	135	211	669	1,237
Estimated outlays	13	101	189	533	1,067
State and local governments:					
Estimated outlays	3	24	49	177	335

In addition, it is estimated that outlays of approximately $6.1 billion will be incurred by the federal government and $3.0 billion by nonfederal entities over the fiscal years 1991 through 1998 as a result of enactment of these authorizations. The federal government will incur no additional operation and maintenance costs but state and local government costs for operation and maintenance will increase by approximately $190 million annually (in 1985 dollars). It is anticipated that total nonfederal reimbursements totaling $8.9 billion will be paid over 30 years beginning in 1998.

Title VIII: Navigation taxes

Subtitle A of Title VIII would increase the Inland Waterways Trust Fund excise tax on diesel and other liquid fuels used by commercial cargo vessels. Currently, the excise tax is scheduled to increase from 8 cents a gallon to 10 cents a gallon on October 1, 1985. Subtitle A would raise the tax to 11 cents a gallon on January 1, 1988 and would continue to increase the amount of the tax by 1 cent a gallon each year thereafter until the tax reaches 20 cents a gallon January 1, 1997. CBO estimates that the increased excise tax on diesel and other liquid fuels, which finances the Inland Waterways Trust Fund, will increase fiscal year revenues by less than $20 million annually through 1990. (As specified in Section 206 of Title II, liquid fuels used by commercial cargo vessels on the Ten-

nessee-Tombigbee Waterway would be added to the tax base of the Inland Waterways Trust Fund excise tax; that change is reflected in this revenue estimate.)

Section 812 of Subtitle B would establish the Navigation Trust Fund to provide operations and maintenance costs for commercial channels and harbors. The trust fund would be financed by a new tax of .04 percent on the value fo all waterborne commercial cargo loaded or unloaded from a vessel at a U.S. port. According to Section 811 of the bill, bunker fuel, ships' stores, equipment necessary to the operation of the vessel, and unprocessed fish and other aquatic animals caught fresh in voyage, would not be considered commercial cargo and therefore would not be subject to the tax. In addition, Section 815 would impose a tax on vessel using a U.S. commercial channel or harbor for purposes other than loading or unloading commercial cargo, such as for making repairs, bunkering, or simply for convenience. A tax equal to $.005 per net registered ton would be assessed on each vessel not more than three times in any fiscal year. CBO estimates that the new taxes imposed by Subtitle B of Title VIII will increase fiscal year revenues by $0.2 billion annually through 1989 and by $0.3 billion in 1990.

6. Estimated cost to state and local governments: The estimated total state and local share of the projects authorized in this bill is shown in the following table.

[Bu fiscal years, in millions of dollars]

	1986	1987	1988	1989	1990
Estimated outlays	15	45	79	247	524

In addition, it is estimated that outlays of approximately $4.9 billion will be incurred by nonfederal units of government over the fiscal years 1991 through 1998. Subsequently, annual operation and maintenance expenditures will be about $0.3 billion. Moveover, these entities will be responsible for reimbursements totaling about $9.4 billion annually over the 30-year period beginning in fiscal year 1991.

This bill also authorizes nonfederal interests to recover their share of construction and maintenance costs for harbor projects through the collection of fees. This provision is expected to affect the ability of nonfederal entities to undertake harbor improvement projects. However no precise estimate of the budget impact of this provision on nonfederal entities is possible.

7. Estimate comparison: None.

8. Previous CBO estimate: On July 17, 1985, the Congressional Budget Office prepared a cost estimate for H.R. 6, the Water Resources Conservation, Development, and Infrastructure Improvement and Rehabilitation Act of 1985, as ordered reported by the House Committee on Public Works and Transportation, June 26, 1985.

9. Estimate prepared by: Theresa Gullo and Neil Fisher.

10. Estimate approved by: James L. Blum, Assistant Director for Budget Analysis.

Evaluation of Regulatory Impact

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee has evaluated the regulatory impact of this legislation. Only section 211(b) explicitly requires that new regulations be promulgated.

Section 211(b) requires the Secretary of the Army, in consultation with the Secretary of the Treasury, to promulgate rules governing penalties and interest for payments by non-Federal sponsors which are required under section 221(b) of the Flood Control Act of 1970 and are delinquent.

Other provisions of this bill, while not explicitly requiring new regulations, may result in their issuance. These sections and provisions are as follows:

Section 208 requires the Secretary to institute a procedure to certify that locally constructed flood control works are compatible with potential Corps of Engineers flood control projects under study for the purposes of cost sharing and benefit-cost analysis. Regulations defining compatibility and outlining the certification process may be necessary.

Section 209 requires the Secretary to undertake a program of research and assistance to communities in river ice control. Regulations could be issued for, the purpose of specifying the conditions for and term of, Corps assistance to local communities.

Section 210 authorizes the Secretary to provide technical assistance to local public agencies on the rehabilitations of existing industrial sites, millraces, and similar facilities as hyroelectric facilities. Regulations regading what types of facilities are eligible for this assistance may be required.

Section 215 allows the Secretary to enter into contracts with local project sponsors who have formed a Federal Project Repayment District for the purpose of meeting its share of project costs. Regulations on the required performance and obligations of the Secretary and the Repayment Districts may be issued.

Section 217 authorizes the Secretary to undertake mitigation of shoreline damage caused by Federal navigation improvements. Regulations addressing when mitigation is appropriate and the performance and obligations of the Secretary and non-Federal interests, may be issued.

Section 219 requires the administration of three grant programs to the six High Plains States for the purpose of research into water conservation, water supply augmentation, and for demonstration projects in agricultural water use efficiency. Regulations may be issued to delineate requirements for the distribution of funds and awarding of grants.

Section 222 requires the Secretary to undertake cost control reviews on all water resources projects constructed by the Corps of Engineers that will cost more than $10,000,000 to construct. Regulations governing the scope and details of these reviews may be issued.

Section 223 requires the Secretary to implement a two-stage planning process. Although this has already been done administratively within the Corps of Engineers, new regulations may be required to implement this section.

Section 224 authorizes the Secretary to purchase mitigation lands for water resources projects under construction and already completed. The Secretary is likely to issue regulations delineating when, how, and how much mitigation lands may be purchased.

Section 225 authorizes the Chief of Engineers to undertake a programs to plan, design, and construct streambank erosion control projects. Some regulations may need in order to delineate project eligibility and terms of cooperation with local interests.

Section 228 authorizes the Secretary to provide construction services on a fully reimbursable basis to a state or its potential subdivisions. Regulations governing the eligibility for services, and controdual responsibilities of the Secretary and the requesting entity, are likey to be promulgated.

Section 229 authorizes the Secretary to approve alteration or use of navigation or flood control projects in certain instances where such alteration would be in the public interest and would not impair the function of that project. Regulations governing the instances in which such exceptions would be made and governing Federal and non-Federal responsibilities will probably be issued.

Section 331 authorizes the Secretary to permit the delivery of water from the District of Columbia water system to any State or local authority in the State of Maryland and authorizes the Secretary to purchase water from those entities. Regulations governing these exchanges are likely to be issued.

Section 401 requires the Secretary to administer a program of grants to the states for the purpose of augmenting and establishing state dam safety programs and authorizes the Secretary to provide training for state dam safety inspectors. Regulations may be issued to govern the eligibility for and disbursement of funds or services under these provisions.

Section 601 delineates new options for non-Federal sponsors and cost sharing requirements with regard to studies for harbor improvement projects. Regulations governing these new procedures and requirements may be issued.

Section 602 outlines new procedures and cost sharing requirements for the construction of harbor improvement projects. New regulations may be required to delineate procedures and requirements under this section.

Section 604 outlines a new procedure whereby non-Federal sponsors can undertake their own harbor improvements, and be eligible, subject to appropriations, for reimbursement from the Secretary. New regulations to define Federal and non-Federal responsibilities under this provision may be necessary.

Section 605 requires the Secretary to establish a new procedure to expedite the processing of all Federal permits required for harbor construction and improvement. Although some new regulations would probably be required by enactment of this section, its overall effect would be to lessen the effects of regulations by coordinating and streamlining already existing procedures.

Section 701 establishes new percentages and procedures for local sponsor cost sharing in Federal water resources projects. New regulations will probably be required to describe conditions and terms of local project sponsor cost-share contributions.

Part B of title 8 establishes a Harbor Maintenance Trust Fund to cover a portion of the costs of coastal harbor maintenance and establishes a nominal tax based on the value of cargo loaded or unloaded at harbors to feed the Trust Fund. New regulations will be necessary to implement several aspects of the those provisions.

A major purpose of this bill is to streamline and speed up Federal action with respect to water resources project planning and construction. Therefore, even though new regulations will be required by enactment of this legislation, the net increase in any regulatory burden will be minimal.

ADDITIONAL VIEWS OF SENATOR ABDNOR

The impasse which has blocked action on this omnibus water resources authorization is unparalleled in this century. Not since the mid-1800's has such a conflict arisen regarding Corps of Engineers projects.

At that time, there was much discussion and controversy over the prospective involvement of the Federal Government in flood control works on the lower Mississippi River, culminating with passage of the Swamp Lands Act of 1849, which was the advent of the Federal role in flood control.

Historians tell us, however, that for a period of 14 years—from 1852 to 1866—no major omnibus water legislation was signed into law. Presidents Taylor, Fillmore, Pierce, and Buchanan each vetoed the major water acts passed during their terms. The Rivers and Harbors Acts of those days both authorized and appropriated funding for projects, and the Presidents at that time believed the Federal Government lacked a Constitutional role in water resources development.

With the outbreak of the Civil War (1861–1865) all civil works not essential to the war effort were suspended, and projects necessary for the war were conducted under war authority, rather than civil works authority.

It is ironic that over a century later many of the same philosophical debating points continue to impede consideration of the civil works program. For nearly a decade, no omnibus legislation has passed. No major construction project authority has been enacted into law since 1970. Consequently, the Corps of Engineers construction program has now fallen to 22 percent of the 1967 workload.

Although I had followed and worked on water policy issues during my 8-year tenure in the House of Representatives, my personal relationship with this water resource odyssey deepened 4½ years ago when I assumed the chairmanship of the Subcommittee on Water Resources.

Knowing personally what water means to the livelihood of South Dakota and the entire Nation, I have made it a high priority to break the impasse and negotiate the drafting of a new water policy and to quickly get on with solving critical water needs.

What I found I faced in embarking on this task was that many well-intentioned people—from the navigation interests of this country, to the Administration, to some of my colleagues on both sides of the aisle—were entrenched in hardened and uncompromising positions.

Unlike circumstances prevailing in the mid-1800's, however, and the events of the last Congress, the one before that, and going all the way back to 1970, we are now reporting a bill knowing that the Administration and Senate leadership are committed to action. The acceptance of new Federal-State and Federal-user relationships

embodied in this bill's water policy initiative has finally broken the impasse, and we are on the verge of meeting the decade-long pent-up demand for water project authorizations.

The Water Resources Development Act of 1985 reestablishes the authorization process for water resources projects while defining a new Federal/non-Federal relationship pertaining to the planning, design, construction and cost sharing of such projects.

From the opening of the 99th Congress, it became clear to me that 1985 held promise for establishing new water policy:

1. One-quarter of the Senate signed on as cosponsors of S. 366 when I introduced it in January.

2. The Administration took a major initiative by introducing its own omnibus bills, accompanied by statements of willingness to enter into a dialog with Congress.

3. Numerous meetings with the Administration culminated on June 21 in the Senate-Administration compromise confirmed in our colloquy published in the Congressional Record.

4. The Public Works and Transportation Committee of the House marked up its version of the omnibus bill on June 26, incorporating provisions similar to the Senate-Administration compromise. This demonstration of the willingness of the House to compromise cast the future of water resources legislation in an even more optimistic light.

The key elements of the compromise embodied in this bill include new cost-sharing and new and increased user fees. These elements are:

Fees

Port maintenance fees—0.04 percent ad valorem tax to recover 40 percent of Corps of Engineers harbor operation and maintenance costs.

Inland navigation—doubling of the user fees to $0.20 per gallon by 1997.

Cost Sharing

Project feasibility studies—50 percent non-Federal (25 percent in kind).

Ports--20 to 60 percent non-Federal.

Inland locks and dams—50 percent from Inland Waterway Trust Fund.

Hydroelectric power—100 percent non-Federal (existing law).

Municipal and industrial water supply—100 percent non-Federal.

Agricultural water supply—35 percent non-Federal.

Recreation—50 percent non-Federal.

Hurricane and storm damage—35 percent non-Federal.

Beach erosion (public)—35 to 50 percent non-Federal.

Flood damage—25 to 35 percent non-Federal.

Aquatic plant control—50 percent non-Federal.

Ability To Pay

In consideration of the dire economic circumstances facing rural America at the present time and the ongoing lack of financial

wherewithal relative to more urbanized areas, the Committee and the Administration have agreed to an "ability to pay" provision governing cost sharing for agricultural water supply, drainage and flood protection projects. Accordingly, local sponsors will not be required to pay more than they can afford and reasonably be expected to pay.

We now have a basic consensus on water legislation. I believe the nine year paralysis on water development can and will be broken with this compromise legislation.

Breaking the impasse brings with it the potential passage of Title IV of this bill, pertaining to dam safety. This provision is of special importance to be because of the loss of 238 people in the devastating Rapid City, South Dakota, flood in 1972.

Title IV addresses non-Federal dams. While non-Federal dams are a non-Federal responsibility, a Federal role exists because the well-being of such a large proportion of the population is at risk. In 1981, over 9,000 non-Federal dams were determined by the Corps of Engineers to be "high hazard" dams by virtue of being located above populated areas. Of those, one-third or about 3,000 non-Federal dams were declared unsafe by the Corps. Few of these have been repaired or modified since then. Since approximately 1,600 new dams are built yearly, often with little or no State control, the issue should receive national attention. This provision is intended to increase safety of non-Federal dams by assisting States to establish dam safety programs, by establishing a National Dam Safety Review Board, and by authorizing a program of research into innovative dam safety inspection techniques.

Unlike the last 9 years, passage of this very important national water policy and project authorization bill is at long last very likely because of the June compromise reached by the Senate leadership and the Administration, and because of the commitment we have made for action this year. The Country has waited long enough for Congress and the Administration to reach this point of consensus. Let's get on with it.

JIM ABDNOR.

ADDITIONAL VIEWS OF SENATOR MITCHELL

It has been many years since Congress has enacted comprehensive water resources development legislation. This measure has many provisions which I support and which are important to me and other members of the Committee.

I am, however, very concerned over Title VIII of this bill which pertains to non-Federal cost sharing for the operation and maintenance of ports. It is my understanding that the legislation would recover up to 40% of the nationwide costs for port maintenance by levying an ad valorem tax on cargo. The tax would equal four cents for every one hundred dollars worth of cargo being transported. I seriously question the fairness and workability of the application of this tax and voted against this Title of the bill.

This tax would be levied on cargo entering all ports regardless of whether such ports are Federally authorized and eligible for Federal maintenance money. Even small fishing villages in Maine and other states would be included.

The tax would be levied on cargo entering all ports regardless of whether such ports receive Federal money for port maintenance. Approximately half of the Federally authorized ports in Maine receive no Federal funds for dredging and related activities.

In addition, the tax would be levied on all commercial cargo, other than fish and other seafood, including cargo which enters this country in bond, and coast wise cargo, not just imports and exports which enter and leave the country through customs. There is no indication in the bill regarding how the tax would be collected on this cargo.

Further, no allowance is made in the bill for ports that are very near Canada and could lose ship traffic to that country.

Finally, cargo entering ports for which maintenance costs are very low would be assessed far in excess of 40% of those costs. For example, Portland, Maine requires an annual average of approximately $290,000 for port maintenance. The ad valorem tax on cargo entering Portland would raise over $1 million dollars.

As originally proposed in Committee, all fish and seafood products would have been taxed. As a result of this, a lobsterman in Maine, who docks his boat at one of our State's many fishing villages, would have payed a tax on his catch. He would have done so without regard for the fact that his village maintains its dock and harbor with state and local dollars. This bill provides no direction as to how such a tax would be collected from him or what level of paper work that would entail.

However, the Committee accepted my amendment to exempt fish and other seafood from the definition of cargo. While this improves the legislation, many problems remain to be corrected.

I understand that this bill will be referred to the Committee on Finance where its cost sharing provisions will be further reviewed.

It is my intention to offer amendments at that time to address many of the problems in the legislation which were not corrected by this Committee.

GEORGE J. MITCHELL.

ADDITIONAL VIEWS OF SENATOR LAUTENBERG

It has been far too long since Congress last passed an omnibus water resources bill. Badly needed projects to improve and maintain our nation's ports, protect communities from the ravages of floods and preserve essential parts of our economic infrastructure have been delayed. Therefore, I voted to approve this legislation, as the one available means to break the logjam of water resources legislation.

During the Committee markup, I expressed reservations regarding the imposition of an ad valorem tax on cargo to pay up to 40 percent of the cost of operating and maintaining our ports. Historically, the operation and maintenance of ports has been a Federal responsibility. The impact of this user fee will be heavily felt in the Delaware River port community which includes Camden and Trenton, New Jersey. The cost of operation and maintenance of these ports is high, as much as $30 million per year, due to the length of the Delaware River. The port community is an essential part of the regional economy. Given the high cost of keeping these ports open, the imposition of this tax could well inhibit economic growth and development in the Delaware River Valley. For that reason, I have severe reservations about the wisdom of imposing this tax on our ports.

The Committee attempted, by adopting the amendment offered by Senator Mitchell, to limit the impact of the ad valorem tax on fishermen. The Mitchell amendment exempted most fishermen, with the exception of those doing complete processing of their catch off-shore. There are many foreign fishing fleets presently doing off-shore processing, in some cases, as joint ventures with U.S. fishermen. As part of federal and state efforts to make U.S. fishermen competitive with foreign competitors, we are seeing the beginning of domestic off-shore processing.

I expressed concern at the markup that the Mitchell amendment might not go far enough. I will continue to examine the impact of this tax on our fishing industry. It would be unwise to burden an emerging industry with additional costs in contravention of efforts to make that industry competitive with foreign fishing fleets.

FRANK R. LAUTENBERG.

CHANGES IN EXISTING LAW

In the opinion of the Committee, it is necessary to dispense with the requirement of section 12 of rule XXVI of the Standing Rules of the Senate in order to expedite the business of the Senate.

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